BC Environment

B.C. Municipal Solid Waste Tracking Report

1997 / 1998

Prepared by:

RCBC

RECYCLING COUNCIL OF BRITISH COLUMBIA

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Acknowledgement

The Ministry of Environment, Lands, and Parks and the Recycling Council of BC would like to thank the regional district staff who participated by supplying regional data for this report. We greatly appreciate their cooperation and efforts, as without their input this project would be impossible.

Executive Summary

The goal established in 1989 for solid waste reduction in British Columbia was to reduce the provincial per capita disposal rate by the end of year 2000 to 50 per cent of the rate in 1990. The main purpose of this report is to present British Columbia's progress towards this goal.

This report presents 1997 and 1998 municipal solid waste (MSW) tracking data provided to the Ministry of Environment, Lands, and Parks (MELP) by regional districts. The report also provides a province-wide update on regional waste management initiatives.

With the target date for achieving the provincial waste reduction goal rapidly approaching, the ministry wishes to ensure that its waste reduction estimates are as accurate as possible. A main consideration in the certainty of these estimates has been the legitimacy of comparing current disposal rates, when demolition, land clearing and construction (DLC) waste is managed under approved solid waste management plans, to the rate in 1990, when DLC was not officially considered part of the MSW stream.

After consultation with regional district staff and considerable deliberation, it was concluded that sufficient information did not exist to estimate with acceptable certainty that portion of the total DLC stream that was burned on site or taken to sites outside the jurisdiction of the regional district. It was further concluded that the remaining part of the DLC stream was already included in the figures reported by regional districts. The accounting approach for DLC was therefore not changed from that used in previous reports, although it was recognized that the disposal rates calculated are not based on the whole of the DLC stream.

The report also uses a more rigorous approach than previous MSW tracking reports for determining disposal rates for regional districts that did not supply their own data. This has resulted in changes to the 1996 as well as 1990 data, but these changes are included only in this report. This should be kept in mind when reviewing the published reports for those two years.

The highlights of this 1997/ 1998 MSW tracking report are:

- In 1997, the provincial disposal rate was **0.669** tonnes per capita, representing a **29 %** reduction of MSW landfilled or incinerated, compared to 1990. The 1990 baseline rate for disposal was **0.944** tonnes per capita.
- In 1998, the provincial disposal rate dropped further to **0.607** tonnes per capita, representing a **36 %** reduction of MSW landfilled or incinerated, compared to 1990.
- Between 1990 and 1998, the total waste disposed per year dropped from 2,890,516 tonnes per year to 2,428,953 tonnes per year, a **16 %** reduction. During the same period the provincial population increased by **31 %**, from 3,063,419 to 4,002,777.

- The provincial per capita recycling rate increased from **0.215** tonnes per capita in 1990 to **0.381** tonnes per capita in 1997 and to **0.444** tonnes per capita in 1998. These figures do not include materials recovered by industry stewardship programs nor much of the materials recovered by private recycling facilities. Actual recycling rates are therefore higher than the ones presented here.

Trends in waste reduction vary widely from regional district to regional district. This variation can be attributed to different levels of MSW reduction initiatives undertaken by regional districts, the ability of the regional districts to track disposal and recycling activities, and the tracking methodology used.

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1 Introduction

1.1 Background

The 1989 amendment to the *Waste Management Act* required regional districts to submit solid waste management plans (SWMP) to the Ministry of Environment, Lands, and Parks (MELP) for approval by the minister. The purpose of these plans was to establish a system for the management of municipal solid waste (MSW) generated in the regional district in accordance with the 5**R** hierarchy and thereby help achieve the provincial waste reduction goal.

Subsequently, a 1992 amendment to the *Waste Management Act* (Bill 29) expanded the definition of MSW to include demolition, land clearing, and construction (DLC) waste, and expanded the scope of MSW management to include recyclable materials. The importance of collecting MSW data was reinforced in the Guide to the Preparation of Regional Solid Waste Management Plans by Regional Districts (1994), as stated in the following section:

> 95 (1) *Knowledge of the weight and nature of the solid waste requiring disposal is essential, not only for setting priorities for further high level management strategies but for evaluating the effectiveness of the plan in meeting the reduction goal.*

The Planning Guide requires that regional districts submit an annual report of the per capita amount of MSW requiring disposal for the plan area, in addition to the data used to determine the rate.

1.2 Provincial and Regional District Waste Reduction Goals

The goal for solid waste reduction in the province is to reduce the per capita amount of waste requiring disposal by the year 2000 to 50 percent of the 1990 per capita disposal rate. The ministry's expectation for each regional district is that it will reduce its waste stream by as much as possible given its geographic and financial situation and the nature of its waste stream. Most regional districts have set their own goals, either adopting the 50% target or choosing a different goal, relative to their own 1990 disposal rate.

1.3 Defining Municipal Solid Waste

As of 1992, the Waste Management Act defines MSW to mean (a) refuse that originates from residential, commercial, institutional, demolition, land clearing or construction sources, or (b) refuse specified by a manager to be included in a waste management plan. The definition of MSW implicitly excludes sewage sludge, agricultural waste, and industrial wood waste.

1.4 The MSW Tracking System

In 1990, MELP established the MSW tracking system to monitor British Columbia's progress towards meeting its year 2000 MSW reduction goal.

The 27 regional districts in the province record and submit information to the ministry on the amount of MSW disposed and recycled. A report is then produced by the MELP summarizing the regional and provincial achievements of MSW management for each year.

Data compilation for the 1997/1998 Municipal Solid Waste tracking report was provided under contract to the MELP by the Recycling Council of British Columbia (RCBC), a multi-stakeholder, non-profit organization. The mandate of RCBC is to promote waste avoidance and resource conservation through research, information exchange, and the delivery of information.

1.5 Purpose and Objectives

The primary objective of MSW tracking is to monitor the amount of MSW landfilled or incinerated in each regional district and in the province as a whole. Its secondary objective is to track the amount and type of materials recycled.

The purpose of this report is to present the 1997 and 1998 MSW tracking results provided by regional districts. The report also provides a province wide update on regional initiatives of MSW management.

Regional data presented in this report are not intended to be a means of comparison among regional districts. Regionally specific circumstances, resources, and infrastructure are paramount in determining the capacity of each regional district to provide accurate data.

1.6 Uncertainty and Data Limitations

The data presented in this report reflect the amount and type of waste that is within the capacity of the regional districts to track. Data provided by each regional district for MSW tracking reports vary in accuracy according to local circumstances, such as availability of staff and weigh scales at disposal sites. As a result, some districts provide more rigorous data than others. The most accurate data are for disposed waste, as most regional districts can measure and record the amount of waste entering regional and municipal facilities. Moreover, facilities with weigh scales enable estimates of disposed waste to be relatively accurate and comparable with those in different years.

It is not often, however, within the capacity of regional districts to enumerate all the waste being *recycled* within their jurisdiction. While regional districts are frequently

able to track recycled waste from the residential sector, information about the waste recycled in the industrial, commercial, and institutional sector is more difficult to obtain. Typically, this information is kept by private companies reluctant to make it public. Therefore, the data for recycled waste almost certainly *underestimate* the total amount of recycling happening within a regional district. This means the total waste generated is also underestimated.

The ministry acknowledges this uncertainty as an inherent part of the present system of MSW tracking. Attention is therefore focused on the data that are most rigourous and most relevant to the waste reduction goal – the amount of waste disposed. The ministry continually seeks to increase data rigour and improve the quality of waste tracking in the province.

Although every attempt has been made to confirm anomalous figures with the regional district, the ministry does not take responsibility for verifying the accuracy of submitted data. That responsibility rests with the regional district.

2 Methodology

2.1 Accounting for Demolition, Land clearing and Construction waste

With the target date for achieving the provincial reduction goal rapidly approaching, the ministry wishes to ensure that the current estimate for reduction in disposal rate since 1990 is as accurate as possible. One of the main concerns about the legitimacy of comparing current disposal rates to the rate in 1990, the base year, was that demolition, land clearing and construction (DLC) waste was not officially considered part of the MSW stream until 1992. Following the amendment of the *Waste Management Act* in that year, regional districts were required to include DLC waste in their solid waste management plans. As more regional districts began implementing approved plans, DLC waste came under more active management.

The ministry therefore requested that the 1990 baseline rate and the reduction rates for 1996 as well as the two years covered in this report be revised as necessary to include DLC waste.

It was first recognized that two categories exist for DLC waste, (1) that which is brought to facilities known to the regional district, and (2) that which is burned on the site of generation or is hauled to an facility outside the regional district's jurisdiction. In most regional districts DLC waste in the first category enters the same landfills as ordinary MSW but is not recorded separately. In the few regional districts where private DLC facilities exist, the amounts are included in the regional total, if known. It can then be assumed that the reported or estimated disposal figures already include this portion of the total DLC waste generated. The real challenge is estimating the amount of DLC waste that does not enter the regional system, but which ideally should be added to the

total if valid comparisons are to be made of disposal rates based on the total DLC waste stream.

An attempt was made to estimate the amount of DLC waste in the second, "*unknown*" category by assuming it was some fraction of the percentage of the first category. As part of the tracking form distributed to regional districts for this report, regional district staff were asked to estimate the known percentage of DLC waste of the total waste disposed, for 1990, 1996, 1997 and 1998. The provincial DLC percentage was then assumed to be the weighted average of all the regional DLC percentages supplied by regional districts that were able to make an estimate, using the total disposal in each of those regional districts as the weighting factor. These percentages were 23% for 1990 and 1996, 24% for 1997, and 22% for 1998. However, it proved impossible to estimate the provincial percentage of unknown DLC waste with the limited data available. This percentage would vary from regional district, from season to season, and from year to year. It was therefore decided that estimating the percentage of unknown DLC waste would introduce an unacceptable degree of uncertainty into the results and therefore there should be no change in the accounting approach for DLC used for this report.

2.2 Accounting for Missing Data

In the 1990-1995 MSW Tracking Reports, regional districts that did not supply their own data were not included in the report, other than including a description of their waste management activities. In the 1996 MSW Tracking Report, a regional disposal amount for such regional districts was calculated by multiplying the regional population by the provincial disposal rate. This approach, however, had the effect of overstating the amount of MSW disposed, since most of the regional districts with missing data were largely rural and had correspondingly lower waste generation rates than the provincial average.

To improve accuracy, a more rigourous method has been used for this report. This consisted of selecting a regional disposal rate based on the trend evident in previous tracking reports and the rates in regional districts with similar waste generation and demographic characteristics, as described in the following section. The relevant regional waste management coordinators were then consulted about the rate and revisions were made as necessary. This technique was used to fill in gaps in the 1990, 1996, 1997, and 1998 data.

2.2.1 Grouping of Regional Districts

To facilitate the process described in the previous section for determining disposal rates based on comparison with similar regional districts, all regional districts were analyzed according to 1996 population; level of waste reduction activity (active, somewhat active, inactive), and population density in people/km^2. The level of waste reduction activity was based on past MSW Tracking Reports and the assessment of knowledgeable RCBC and ministry staff. The data are from BC STATS web site, which can be found at http://www.bcstats.gov.bc.ca/data/pop/pop/mun9699e.htm.

Using these criteria, regional districts fell into 5 groups, as follows:

GROUP 1: Regional districts with population greater than 120,000, with population density greater than 15 people per km², with active programs of waste reduction.

Regional District	1990 Disposal (tonnes / capita)	1998 Disposal (tonnes / capita)	1998 Population	Weigh scales (Yes/No/Partly)
Greater Vancouver	0.990	0.675	1,978,848	Yes
Capital	0.620	0.390	334,871	Yes
Fraser Valley	0.945	0.499	237,128	Yes
Central Okanagan	1.210	0.640	147,113	Yes
Nanaimo	0.550	0.483	132,442	Yes
Thompson-Nicola	0.670	0.518	126,798	Partly

GROUP 2: Regional districts with population between 50,000 and 120,000, population density less than 4 people per km², with somewhat active programs of waste reduction.

Regional District	1990 Disposal (tonnes/capita)	1998 Disposal (tonnes/capita)	1998 Population	Weigh scales (Yes/No/Partly)
Okanagan-Similkameen	1.200	1.085	78,700	Yes
North Okanagan	1.040	0.575	75,240	Partly
Cowichan Valley	0.770	0.520	73,735	Partly
Comox-Strathcona	0.650	0.486	101,085	Partly
Central Kootenay	0.701	0.334	61,602	No
East Kootenay	0.700	0.961	56,366	No
Columbia Shuswap	0.650	0.424	52,256	Yes
Peace River	0.920	0.858	60,000	No

GROUP 3: Regional districts with population between 50,000 and 120,000, population density greater than 4 and less than 7 people per km², with somewhat active to active programs of waste reduction.

Regional District	1990 Disposal (tonnes/capita)	1998 Disposal (tonnes/capita)	1998 Population	Weigh scales (Yes/No/Partly)
Cariboo	0.400	0.329	73,024	No
Fraser-Fort George	0.700	0.819	101,782	Partly

GROUP 4: Regional districts with population between 20,000 and 50,000, population density less than 4 people per km², with inactive to somewhat active programs of waste reduction.

Regional District	1990 Disposal (tonnes/capita)	1998 Disposal (tonnes/capita)	1998 Population	Weigh scales (Yes/No/Partly)
Powell River	0.690	0.267	21,124	Yes
Skeena-Queen Charlotte	0.800	0.629	24,795	Partly
Squamish-Lillooet	1.200	0.606	42,714	Partly
Bulkley-Nechako	0.700	0.578	42,899	No
Kitimat-Stikine	0.700	0.600	46,499	No
Sunshine Coast	0.900	0.438	26,947	Yes
Alberni-Clayoquot	0.550	0.252	26,914	Yes
Kootenay Boundary	0.850	0.550	34,309	No

GROUP 5: Regional districts with population less than 20,000, population density less than 4 people per km², with inactive programs of waste reduction.

Regional District	1990 Disposal (tonnes/capita)	1998 Disposal (tonnes/capita)	1998 Population	Weigh scales (Yes/No/Partly)
Northern Rockies[1]	1.80	1.846	6,500	Yes
Central Coast	0.400	0.350	3,921	No
Mount Waddington	0.800	0.583	15,000	No

To estimate a disposal rate using this scheme, a trial rate was selected that fit the trend for data submitted for all previous MSW tracking reports. This figure was then modified if necessary after comparing it to the average disposal rate for the above group which included the regional district in question, and paying particular attention to the disposal estimates of those regional districts in the group which had weigh scales at their facilities. The resulting estimate was evaluated and amended with feedback from regional district staff whenever possible.

2.3 Collection of 1997 and 1998 Data

2.3.1 Disposal

In previous years (1990-1995), most regional districts provided data using the standard forms supplied by the MELP. This data form was redesigned by the MELP for the 1996 report, in consultation with several regional districts, to simplify data submission. For the 1997/ 1998 report, a similar data form and guide was distributed electronically to regional districts to ease data collection.

[1] This regional district was formerly known as Fort Nelson-Liard.

Once a regional district returned the data form, a draft version of the submitted data was faxed back to the regional coordinator of waste reduction for verification. Unverified data are identified as "Draft" in the data status section on the regional reports and verified data are labeled "Confirmed by Regional District".

Varying numbers of regional districts did not submit data for 1990, 1996, 1997, or 1998. The missing disposal rates for these regional districts were estimated using the method described in Section 2.2. Total disposal was calculated by multiplying the estimated disposal rate by the regional district's population, for the year in question. This enabled the compilation of the provincial overview for 1996, 1997 and 1998 with less than complete participation from regional districts. Whenever this method was used, the page for the respective regional district shows the words "Grouping/previous MSW Tracking Reports" as the data source for the relevant year.

2.3.2 Recycling

In 1990, not all regional districts were tracking recycling activities. Whenever regional districts reported recycling activities in 1990, they appear on the regional sheets. As many recycling activities went unreported in 1990, the actual 1990 recycling rate is *higher* by an uncertain amount than the rate presented in this report. These recycling data should therefore be considered minimum estimates of the amount of recycling happening in the regional districts.

While the collection of recycling data has improved since 1990, it is still not complete. Several regional districts attempt to survey private recycling operators but most do not. In addition, only a few regional districts track and report the amounts of recyclables diverted by industry product stewardship programs. As a result, recycling figures *underestimate* the actual amount of recycling both in individual regional districts and in British Columbia. For that reason, the focus should be on comparisons among different years to identify trends for each regional district, not on the absolute numbers.

This is also the reason for an anomaly in the figures for the Greater Vancouver (GVRD) and Fraser Valley (FVRD) Regional Districts. Solid waste and recyclable material generated in Abbotsford, in the FVRD, is exported to the GVRD waste management system, through the Matsqui Transfer Station. In past reports, this material has been included in the GVRD figures in some years and in FVRD figures in others. For consistency, the amount of waste requiring disposal from Abbotsford has now been counted under FVRD because that was where the waste was generated, for each of the 1996, 1997 and 1998 sets of data in this report. However, it was not possible to extract the quantities of materials recycled from Abbotsford, so these were left under the GVRD figures. The justification for this discrepancy is that the recycling rate is understated in any case and is most useful to regional districts, while MSW tracking by the ministry is primarily about the amount of waste requiring disposal.

2.4 Calculations

The per capita disposal rate was calculated as follows:

Per Capita Disposed = Regional MSW Disposed ÷ Regional District Population

The total MSW disposed includes amounts disposed within the regional district, as well as the amounts exported via transfer stations.

For each regional district, when the amounts recycled were available, the per capita MSW recycling rate was calculated as follows:

Recycling Rate (%) = (Total MSW Recycled ÷ Total MSW Generated) x 100

The total amounts recycled include materials diverted according to the definition of "recycling" in the Planning Guide, and do not include backyard composting.

The total amount of MSW generated was calculated as follows:

Total MSW Generated = MSW Recycled + MSW Disposed

For the provincial figures, the BC STATS estimate of population was used. Using the BC STATS estimate minimizes the compounding of error that may result from using the sum of the 27 different estimates of population provided by the regional districts.

2.5 Report Structure

The 1997/98 Municipal Solid Waste Tracking report includes:

- MSW disposal and recycling data summary for the province for 1996-1998;
- MSW disposal and recycling data for each regional district, including the source and material type recycled where such data were available, for 1996 through 1998;
- graphical representation of per capita waste disposal and recycling rates;
- 1997 and 1998 survey results of regional waste disposal facilities, where information was available; and,
- a summary of challenges to tracking MSW, as identified by regional districts.

3 Discussion and Analysis

3.1 British Columbia MSW Overview

3.1.1 Provincial Waste Reduction Trends

In summary,

- In 1997, the provincial disposal rate was **0.669** tonnes per capita, representing a **29 %** reduction of MSW landfilled or incinerated, compared to 1990. The 1990 baseline rate for disposal was **0.944** tonnes per capita.

- In 1998, the provincial disposal rate dropped further to **0.607** tonnes per capita, representing a **36 %** reduction in the disposal rate, compared to 1990.

- Between 1990 and 1998, the total waste disposed per year dropped from 2,890,516 tonnes per year to 2,428,953 tonnes per year, a **16 %** reduction. During the same time period, the provincial population increased by **31 %**, from 3,063,419 to 4,002,777.

- The provincial per capita recycling rate increased from **0.215** tonnes per capita in 1990 to **0.381** tonnes per capita in 1997 and to **0.444** tonnes per capita in 1998.

Generally, the disposal data are more accurate while information on recycling is of lower accuracy. As mentioned previously, regional districts reported that waste disposal statistics are easier to obtain, as most disposal facilities are owned or licensed by municipal or regional government. Recycling figures are more difficult to obtain, as many private operators are not required to report diversion data.

Information is generally more accurate for urban areas than for rural areas. This reflects larger and more sophisticated waste facilities serving urban areas, with weigh scales. In contrast, many rural facilities are unstaffed and do not have scales or tipping fees.

In response to these challenges regional districts have adopted their own methods of tracking MSW. For example, some regional districts that do not have weigh scales conduct surveys of volume quantity.

3.1.2 Sensitivity Analysis

In order to understand some of the uncertainty surrounding the percent reduction in provincial per capita disposal since 1990, a sensitivity analysis on some key input variables was performed. In other words, the values of input variables, such as total

waste disposed in small and large regional districts, were changed and their subsequent effect on percent reduction in provincial per capita disposal since 1990 assessed.

Generally, more populated regional districts have a greater impact on the reduction in the provincial per capita disposal rate than less populated regional districts. The larger the population of a regional district, the larger its percent contribution to the total waste disposed in the province, and therefore the larger the potential impact of uncertainty in its disposal figure on the provincial disposal rate reduction. For example, changing the total disposed in 1990 by the Alberni-Clayquot Regional District to 50 % of its estimated value (i.e., changing it to 8,320 tonnes from 16,641 tonnes) has little impact on the percent reduction in the provincial per capita disposal rate (i.e., from 36 % to 35 %). However, a similar change for the GVRD (i.e., changing total disposed in 1990 to 797,395 tonnes from 1,594,790 tonnes) causes the disposal rate reduction to fall to 11 % from 36 %. It is therefore important that the more populated regional districts like the GVRD, Capital, Fraser Valley, and Thompson-Nicola be as rigourous as possible in measuring disposal for accurate determination of British Columbia's progress in reducing the amount of waste requiring disposal.

Fortunately, disposal in these more populated regional districts is typically almost all weighed. This means the uncertainty associated with these disposal estimates and their subsequent effect on the provincial disposal rate reduction is relatively low. Uncertainty in disposal from less populated regional districts like ACRD or the Central Coast Regional District has a small effect on provincial percent reduction since 1990, making uncertainty in their estimate less important for generating a provincial rate. This reasoning should not, however, be used to suppress support for increased rigour in disposal data from less populated regional districts, e.g., by installing weigh scales.

3.2 Provincial Summary Data

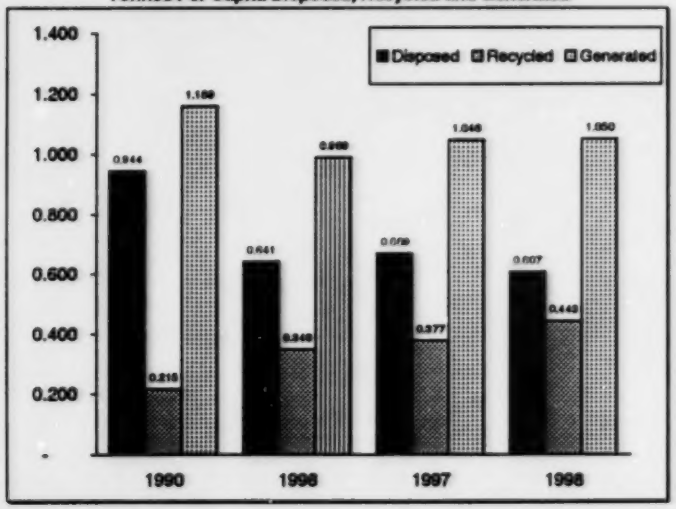
(see next page)

British Columbia - Municipal Solid Waste Data Summary

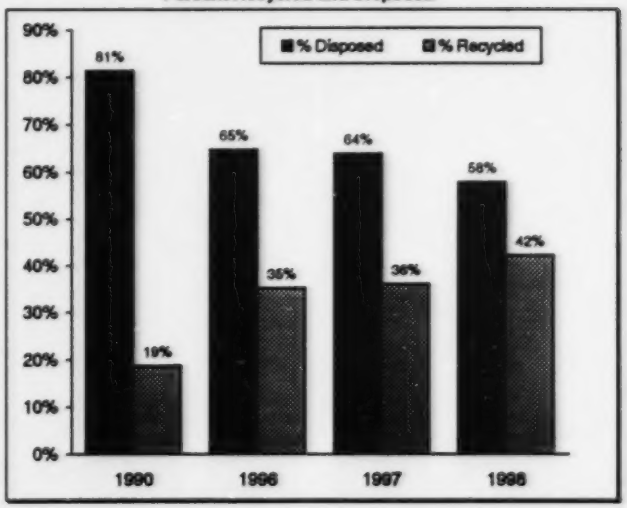
Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	3,063,419	2,890,516	81%	0.944	659,764	19%	0.215	3,550,280	1.159
1996	3,882,043	2,488,741	65%	0.641	1,351,496	35%	0.348	3,840,237	0.989
1997	3,961,400	2,650,108	64%	0.669	1,494,141	36%	0.377	4,144,249	1.046
1998	4,002,777	2,428,953	58%	0.607	1,772,693	42%	0.443	4,201,646	1.050

Reduction in the per capita disposal rate (from 1990) was 32% in 1996, 29% in 1997 and 36% in 1998.

Tonnes Per Capita Disposed, Recycled and Generated



Percent Recycled and Disposed



Source of 1990 data:

1. The 1990 baseline MSW generation rate was estimated from previous MSW tracking reports in combination with a grouping scheme to generate individual rates for each regional district. This baseline rate includes Demolition, Land-clearing, and Construction waste.

Source of 1997 and 1998 data:

1. All except the following regional districts provided their own data for 1997: Central Coast, Comox-Strathcona, East Kootenay, Fort Nelson-Liard, Mount Waddington, Peace River, Squamish-Lillooet. All regional districts provided 1998 data, except for the Central Coast Regional District where regional circumstances required estimation of disposal rates.
2. Amount disposed by regional districts that did not provide data was estimated as (estimated disposal rate) X (regional population).
3. BC population estimates are from BC STATS.

4 Regional MSW Overview

4.1 Analysis from Data Collection Forms

Twenty-six of 27 regional districts returned the completed data forms in 1998. Because of the difficulties of waste tracking in the Central Coast Regional District, the amount of waste disposed in 1998 was estimated for this regional district using the grouping scheme and previous MSW tracking reports. Disposal rates were estimated for three and six regional districts for 1996 and 1997, respectively.

4.1.1 1997 Data

In 1997, **91 %** of the waste disposed was weighed at regional facilities[2]. Only **9 %** of the total amount of waste disposed was quantified using conversions of volumes to mass or other estimation techniques. Landfilling accounted for **89 %** of the waste disposed, while the remaining **11 %** was incinerated in four incineration facilities.

4.1.2 1998 Data

In 1998, **87 %** of the waste disposed was weighed at regional facilities and **13 %** of the total amount of waste disposed was quantified using conversions of volumes to mass or other estimation techniques. The decrease in the percentage of waste weighed from 1997 to 1998 resulted from a proportionally greater increase in waste disposed in the many regional districts without weigh scales than in those with scales. As in 1997, landfilling accounted for **89 %** of the waste disposed was landfilled, while the remaining **11 %** was incinerated.

4.2 Analysis from 1997 Regional District Surveys

A brief survey was included with the data collection form sent to all regional districts in 1997. The survey provided an opportunity for regional districts to share examples of significant waste management achievements and initiatives. These achievements and initiatives are summarized on the section for each regional district. The survey also requested regional districts to identify challenges facing the regional district when trying to measure solid waste disposal and recycling.

4.2.1 Challenges to Tracking MSW (Identified by regional districts)

Measuring solid waste and recycling has been challenging for some regional districts because of limited infrastructure for data collection and incomplete implementation of their SWMP.

[2]It was assumed that regional districts that did not complete this section of the data collection form do not have weigh scales at regional facilities.

Challenges in measuring waste disposal relate to:

- lack of weigh scales and/or unstaffed disposal facilities;
- determining the impact of rainfall on the weight of recyclables and waste;
- identifying which waste disposed in the landfill is MSW. For example, the GVRD occasionally accepts certain types of sewage sludge, which is not part of the MSW stream, but passes over their scales. Similarly, disposal facilities are occasionally obligated to accept emergency wastes from spoiled shipments or spill cleanup;
- incoming tonnages to a transfer station do not always equal outgoing tonnages. This is partly because of materials recovered from the waste stream for recycling, but also because of inevitable scale error. Weigh scales are most accurate when weighing larger loads. At transfer stations used by residents, waste often comes in via residential vehicles (i.e., larger number of smaller loads) and leaves via long haul vehicles (i.e., small number of larger loads). Therefore, outgoing tonnages are more accurate than incoming tonnages.
- inability to survey landfill, as an alternative means of measuring waste disposal volumes; and,
- lack of clear definitions of terms used.

Challenges in calculating the total amount of waste generated include the following:

- recycling activities not operated by the regional district or municipalities (including private or non-profit activities, and product stewardship programs);
- diversion as a result of waste reduction and reuse; and,
- DLC waste disposal and recycling by the private sector.

Examples of some logistical challenges include the following:

- decentralized system (e.g., in one regional district each landfill is responsible for meeting its own waste reduction goal); and,
- several regional districts do not have designated waste reduction coordinators.

4.3 Status of Solid Waste Management Plans

In 1997 and 1998, all regional districts except for Central Coast and East Kootenay had approved solid waste management plans.

5 MSW Tracking Data from Regional Districts

Alberni-Clayoquot Regional District

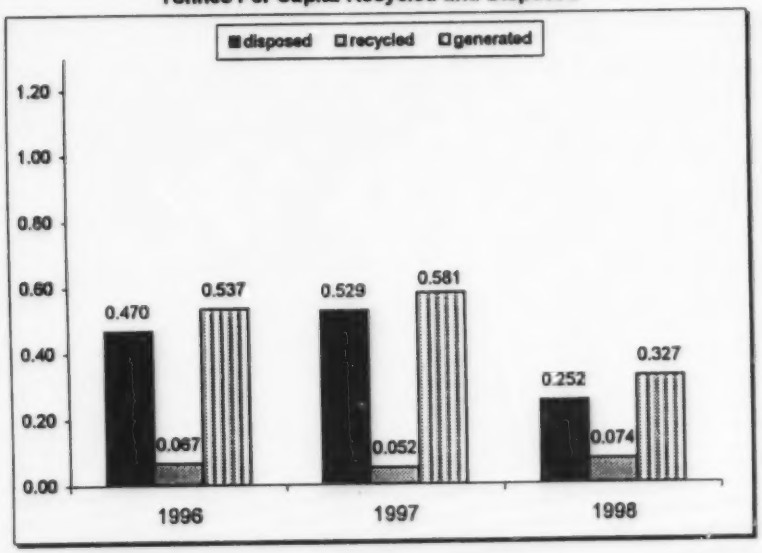
Regional District Area (km^2): 7,738

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	30,257	16,641	98%	0.550	332	2%	0.011	16,973	0.550
1996	30,000	14,097	88%	0.470	2,010	12%	0.067	16,107	0.537
1997	28,824	15,254	91%	0.529	1,500	9%	0.052	16,754	0.581
1998	26,914	6,793	77%	0.252	1,994	23%	0.074	8,788	0.327

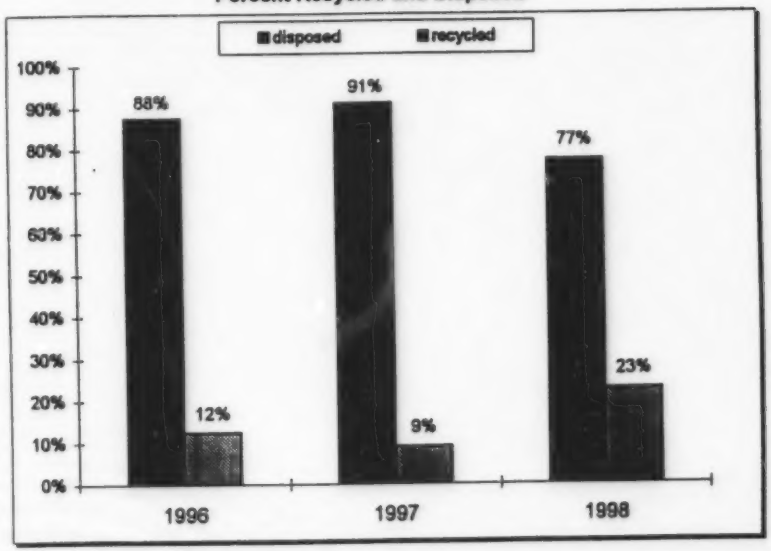
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/previous MSW reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Alberni-Clayoquot Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	73.0	56.7
Household	Other	19.0	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	154.0	986.1
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	28.0	794.2
Metals	White Goods	658.0	-
Organic	Wood	-	-
Organic	Yard	450.0	-
Paper	Co-mingled	-	36.2
Paper	Corrugated	31.0	-
Paper	Fine	-	-
Paper	News	23.0	24.1
Plastic	All	-	33.4
Programs	Battery, paint, etc.	64.0	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	63.8
	TOTAL	1,500	1,994
Total Recycled Per Capita (tonnes)		0.05	0.07

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Alberni Valley Landfill	Landfilled	Yes	15,254.0	6,793.2
		TOTAL	15,254.0	6,793.2

Notes and Programs of Significance

- Metals - Other includes white goods.

Regional District of Bulkley-Nechako

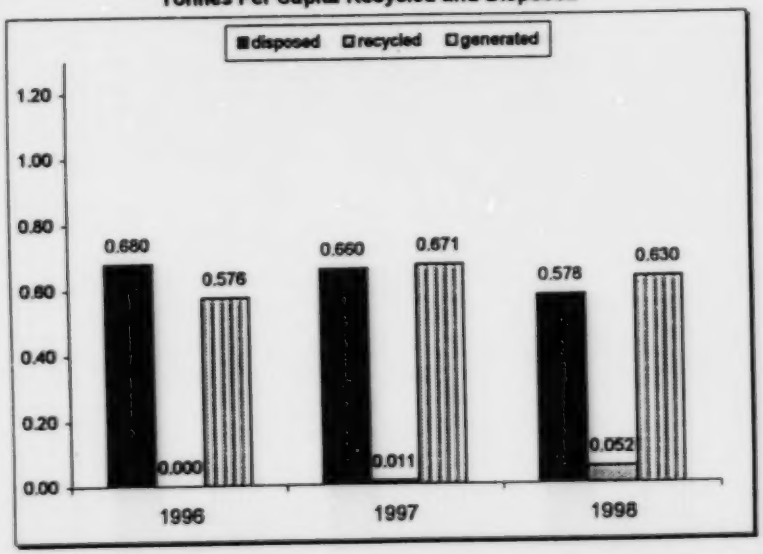
Regional District Area (km^2): 72,101

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	37,136	25,995	100%	0.700	0	0%	0.000	25,995	0.700
1996	43,047	29,272	100%	0.680	1	0%	0.000	29,273	0.576
1997	41,642	27,493	98%	0.660	451	2%	0.011	27,944	0.671
1998	42,899	24,789	92%	0.578	2,237	8%	0.052	27,026	0.630

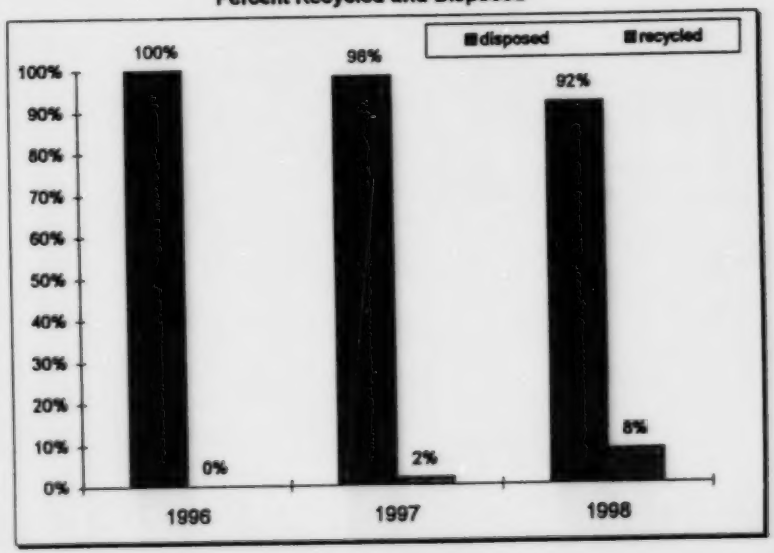
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 0-25%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Grouping/Previous MSW Tracking reports
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Regional District of Bulkley-Nechako

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	400.0	640.0
Metals	White Goods	-	720.0
Organic	Wood	-	794.0
Organic	Yard	-	-
Paper	Co-mingled	-	50.0
Paper	Corrugated	50.0	-
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	-
Programs	Battery, paint, etc.	1.0	33.0
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	451	2,237
Total Recycled Per Capita (tonnes)		0.01	0.05

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Burns Lake Landfill	Landfilled	No	4,080.0	4,009.0
Fort Fraser Landfill	Landfilled	No	430.0	384.0
Fort St. James Landfill	Landfilled	No	3,190.0	3,109.0
Fraser Lake Landfill	Landfilled	No	3,640.0	1,730.0
Granisle Landfill	Landfilled	No	550.0	385.0
Knockholt Landfill	Landfilled	No	3,110.0	2,877.0
Manson Creek Landfill	Landfilled	No	45.0	41.0
Smithers Landing Landfill	Landfilled	No	13.0	13.0
Smithers/Telkwa Landfill	Landfilled	No	7,370.0	7,379.0
Vanderhoof Landfill	Landfilled	No	4,970.0	4,862.0
Ootsa Lake Landfill	Landfilled	No	95.0	Closed
		TOTAL	27,493.0	24,789.0

Notes and Programs of Significance

- No weigh scales in 1997 or 1998 - all values estimates based on waste weighed in 1998/99 at Smithers/Telkwa landfill and 1 week measurements at other landfills using portable weigh scales.
- Data exclude stewardship programs (liquor, pop bottle refund programs).
- White goods recycled with other metals.
- Wood waste is presently burned.
- 1996 waste disposed estimated using grouping / previous MSW reports.

Capital Regional District

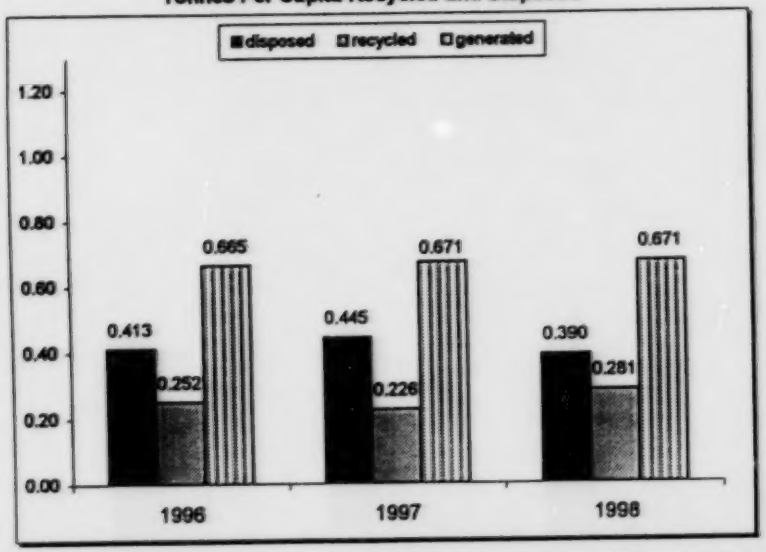
Regional District Area (km^2): 2,420

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	291,880	180,966	91%	0.620	16,959	9%	0.058	197,925	0.678
1996	328,880	135,869	62%	0.413	82,774	38%	0.252	218,643	0.665
1997	329,135	146,442	66%	0.445	74,408	34%	0.226	220,850	0.671
1998	334,871	130,604	58%	0.390	94,094	42%	0.281	224,698	0.671

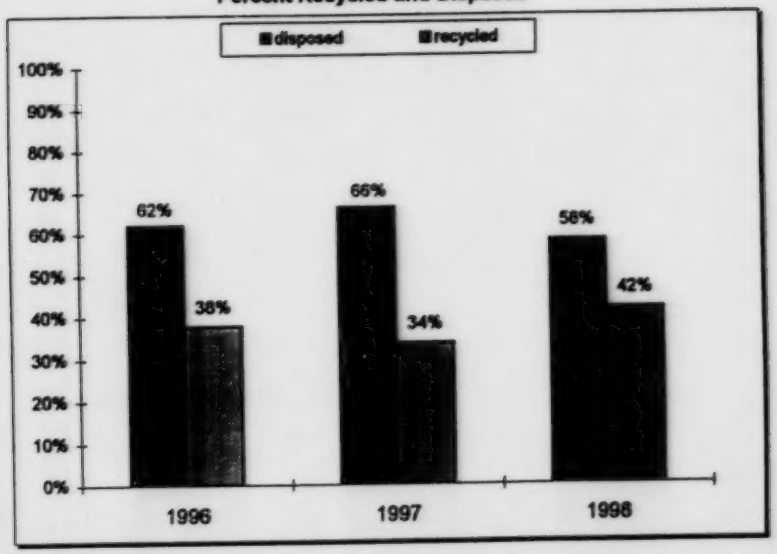
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Capital Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	897.0	3,394.0
Household	Other	3,151.0	-
Household	Propane Tanks	39.0	48.0
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	449.0	300.0
Metals	Other	2,230.0	2,430.0
Metals	White Goods	620.0	630.0
Organic	Wood	-	-
Organic	Yard	15,447.0	10,556.0
Paper	Co-mingled	5,943.0	7,774.0
Paper	Corrugated	1,687.0	1,733.0
Paper	Fine	-	-
Paper	News	8,306.0	8,165.0
Plastic	All	155.0	174.0
Programs	Battery, paint, etc.	35,237.0	58,688.0
Rubber	Tires	207.0	202.0
Textiles	All	-	-
Recyclables	Co-mingled	40.0	-
	TOTAL	74,408	94,094
Total Recycled Per Capita (tonnes)		0.23	0.28

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Hartland Landfill	Landfilled	Yes	146,442.0	130,604.0
		TOTAL	146,442.0	130,604.0

Notes and Programs of Significance

- Total waste recycled includes all 3R's activities and ICI diversion.

Cariboo Regional District

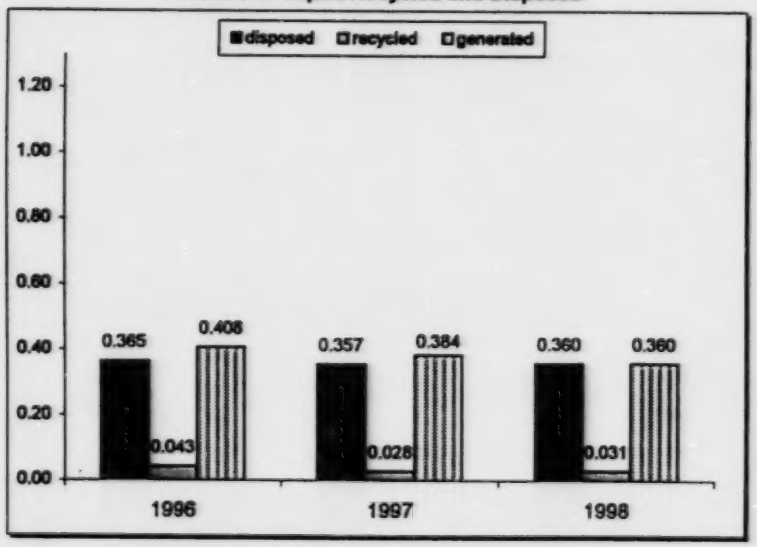
Regional District Area (km^2): 69,169

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	58,641	23,456	100%	0.400	0	0%	0.000	23,456	0.400
1996	69,192	25,261	89%	0.365	2,993	11%	0.043	28,254	0.408
1997	66,607	23,751	92%	0.357	1,852	8%	0.028	25,603	0.384
1998	73,024	24,056	92%	0.360	2,232	8%	0.031	26,288	0.360

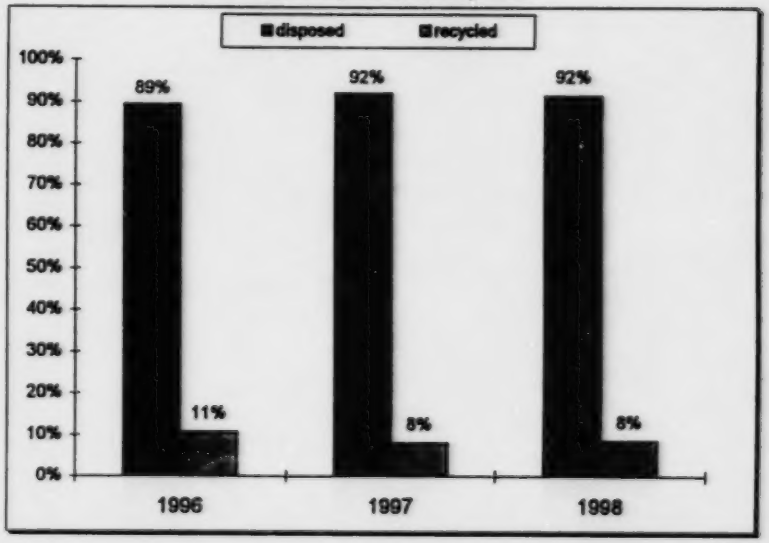
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Cariboo Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	1,250.0	1,200.0
Metals	White Goods	-	187.0
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	20.0	-
Paper	Corrugated	385.0	348.0
Paper	Fine	12.0	20.0
Paper	News	185.0	179.0
Plastic	All	-	21.0
Programs	Battery, paint, etc.	-	13.0
Rubber	Tires	-	250.0
Textiles	All	-	14.0
Recyclables	Co-mingled	-	-
	TOTAL	1,852	2,232
Total Recycled Per Capita (tonnes)		0.03	0.03

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Carson Pit, Quesnel	Landfilled	No		
Williams Lake	Landfilled	Yes		
Hundred Mile House	Landfilled	No		
Lone Butte	T.S.	No		
Sheridan Lake	Landfill	No		
Watch Lake	Landfill	No		
Riske Ck.	T.S.	No		
Alexis	Landill	No		
Nemaiah Valley	Landill	No		
Tatla Lake	Landill	No		
Punpzi Lake	Landill	No		
Nimpo Lake	Landill	No		
		TOTAL	-	-

Notes and Programs of Significance

- Recycled data does not include stewardship programs.
- Breakdown of disposed waste by facility type not available.
- Facilities list includes only some of the disposal facilities in Cariboo Regional Dist.
- 14 Transfer Stations send waste to 3 large landfills.

Central Coast Regional District

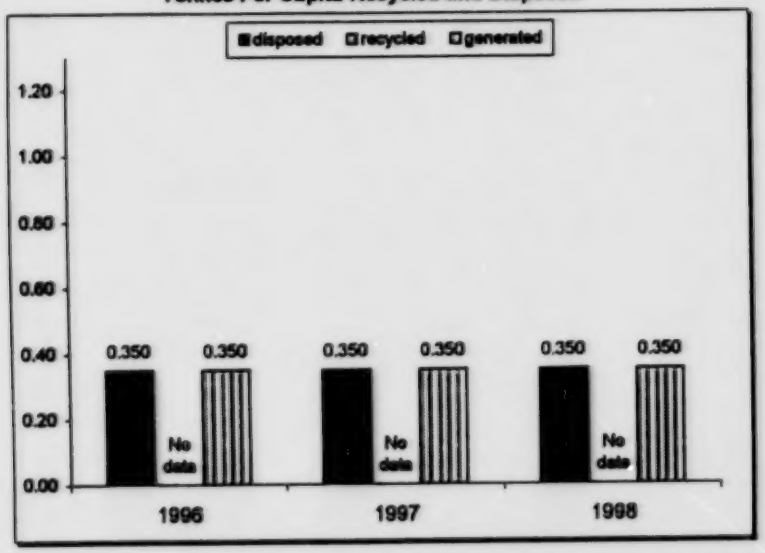
Regional District Area (km^2): 25,000

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	3,500	1,400	100%	0.400	0	0%	0.000	1,400	0.400
1996	4,055	1,419	No data	0.350	No data	No data	No data	1,419	0.350
1997	4,310	1,509	No data	0.350	No data	No data	No data	1,509	0.350
1998	3,921	1,372	No data	0.350	No data	No data	No data	1,372	0.350

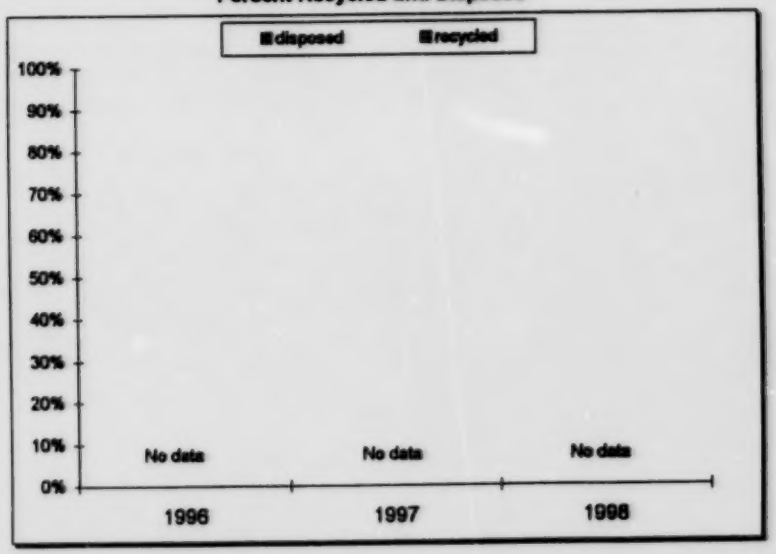
Approved solid waste management plan (SWMP): No

SWMP State of implementation: N/A

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Estimates reviewed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Grouping/Previous MSW Tracking reports
Source of 1997 data: Grouping/Previous MSW Tracking reports
Source of 1998 data: Grouping/Previous MSW Tracking reports

Central Coast Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	-
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	-	-
Paper	Corrugated	-	-
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	-
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL		
Total Recycled Per Capita (tonnes)		0.00	0.00

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Thorsen Creek	Landfilled	no	unknown	unknown
		TOTAL	-	-

Notes and Programs of Significance

- 1997 data was not confirmed by regional district.
- Source for 1997 population figure: B.C. STATS.
- Diversion activities in Central Coast RD are limited to the return of pop cans and liquor bottles to the respective vendors, occasional pickup of metals and batteries from the landfill, and scavenging at the landfill by residents.
- 1998 per capita disposal rate estimated using grouping / previous MSW tracking reports.

Central Kootenay Regional District

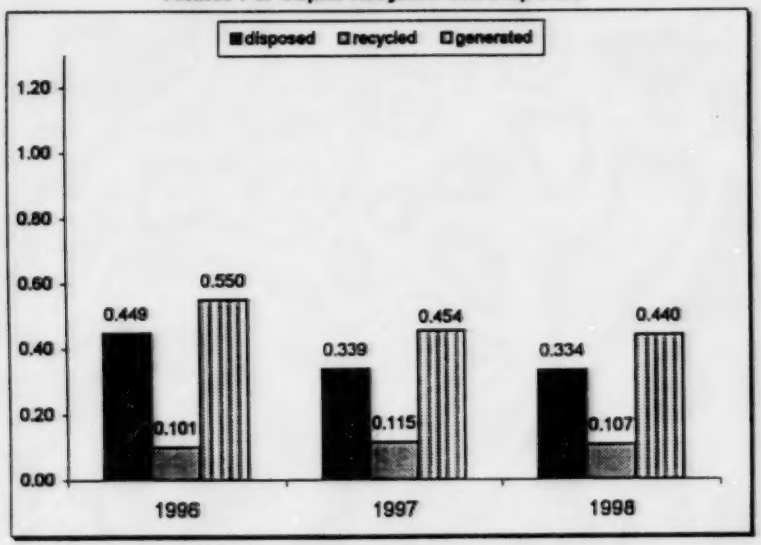
Regional District Area (km^2): 23,158

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	49,587	34,760	100%	0.701	148	0%	0.003	34,908	0.704
1996	58,099	26,083	82%	0.449	5,889	18%	0.101	31,972	0.550
1997	60,725	20,591	75%	0.339	6,988	25%	0.115	27,579	0.454
1998	61,602	20,550	76%	0.334	6,566	24%	0.107	27,116	0.440

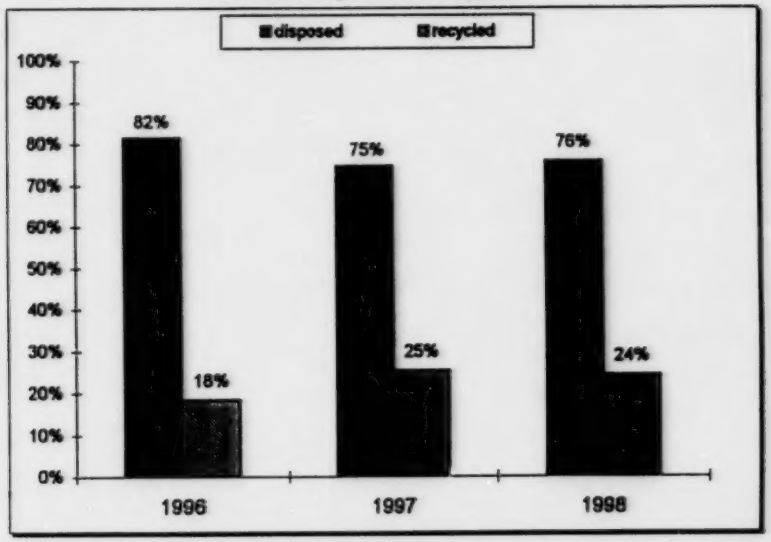
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District

Source of 1990 data: Grouping/Previous MSW Tracking Reports

Source of 1996 data: Regional District

Source of 1997 data: Regional District

Source of 1998 data: Regional District

Central Kootenay Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	493.1	900.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	319.1	500.0
Metals	White Goods	-	-
Organic	Wood	3,375.0	-
Organic	Yard	50.0	100.0
Paper	Co-mingled	627.4	1,650.0
Paper	Corrugated	1,237.6	1,800.0
Paper	Fine	124.7	180.0
Paper	News	511.4	1,000.0
Plastic	All	22.3	200.0
Programs	Battery, paint, etc.	-	-
Rubber	Tires	105.5	86.0
Textiles	All	-	-
Recyclables	Co-mingled	121.8	150.0
	TOTAL	6,988	6,566
Total Recycled Per Capita (tonnes)		0.12	0.11

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Canex Landfill, Salmo	Landfilled	No	6,645.2	3,550.0
Kaslo Landfill, Kaslo	Landfilled	No	647.0	700.0
Marblehead Landfill	Landfilled	No	226.5	n/a
Boswell Landfill, Boswell	Landfilled	No	85.0	100.0
Creston Landfill, Creston	Landfilled	No	4,936.0	8,150.0
Burton Landfill, Burton	Landfilled	No	125.0	100.0
Edgewood Landfill	Landfilled	No	265.0	150.0
Nakusp Landfill, Nakusp	Landfilled	No	710.0	1,200.0
Castlegar Landfill	Landfilled	Yes ('98)	6,261.4	6,000.0
Rosebery Landfill, Roseberry	Landfilled	No	430.0	600.0
Slocan Landfill, Slocan	Landfilled	No	260.0	n/a
		TOTAL	20,591.1	20,550.0

Notes and Programs of Significance

- Data for waste disposed are estimates.
- Main challenge is lack of weigh scales at most sites.
- Weigh scale installed at Castlegar Landfill in July 1998.
- User fees for waste disposal as of March 1, 1997 charged at all facilities except in eastern portion of RD where fees implemented July 1997.
- Marblehead and Slocan landfills are Transfer Stations; waste weights determined elsewehere.

Central Okanagan Regional District

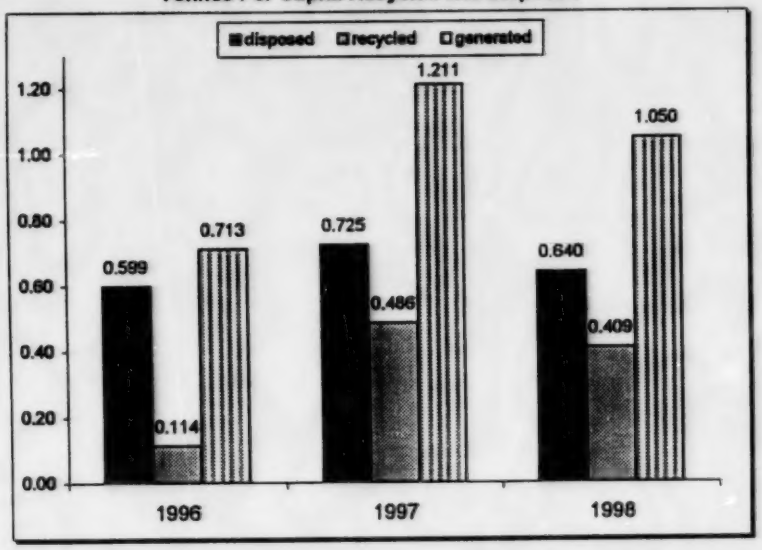
Regional District Area (km^2): 2,886

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	103,304	124,998	98%	1.210	2,797	2%	0.027	127,795	1.237
1996	141,673	84,924	84%	0.599	16,083	16%	0.114	101,007	0.713
1997	145,213	105,259	60%	0.725	70,526	40%	0.486	175,785	1.211
1998	147,113	94,216	61%	0.640	60,222	39%	0.409	154,438	1.050

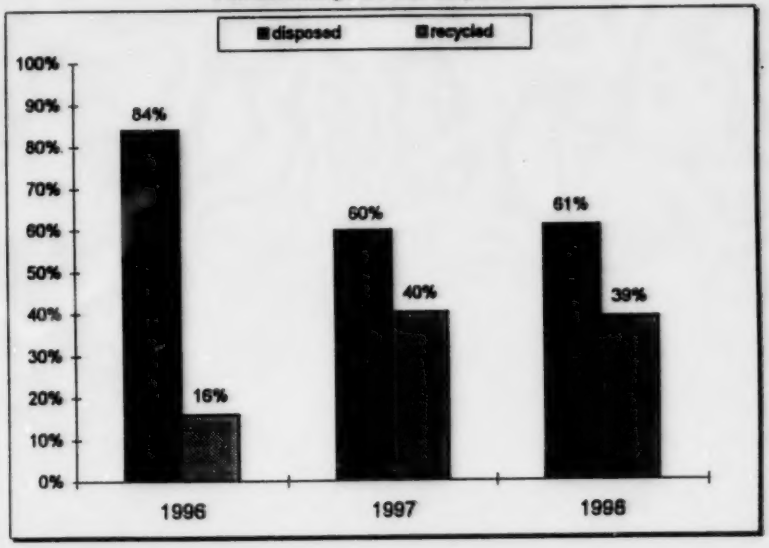
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking Reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Central Okanagan Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	977.0	1,162.0
Household	Other	10,464.0	-
Household	Propane Tanks	12.4	21.0
Inorganic	Asphalt	21,385.0	6,165.0
Inorganic	Co-mingled	-	-
Inorganic	Concrete	17,044.0	4,347.0
Inorganic	Gypsum	1,234.0	1,524.0
Metals	Other	858.0	251.0
Metals	White Goods	27.0	-
Organic	Wood	5,267.0	1,430.0
Organic	Yard	2,604.0	4,348.0
Paper	Co-mingled	1,543.0	3,414.0
Paper	Corrugated	4,176.0	15,150.0
Paper	Fine	-	-
Paper	News	4,448.0	4,829.0
Plastic	All	114.0	123.0
Programs	Battery, paint, etc.	141.0	15,803.0
Rubber	Tires	124.0	1,258.0
Textiles	All	108.0	136.0
Recyclables	Co-mingled	-	261.0
	TOTAL	70,526	60,222
Total Recycled Per Capita (tonnes)		0.49	0.41

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Glenmore Landfill, Kelowna	Landfilled	Yes	87,618.0	75,983.0
Westide Landfill	Landfilled	Yes	16,093.0	18,233.0
Peachland Dump	Landfilled	No	1,548.0	Closed
		TOTAL	105,259.0	94,216.0

Notes and Programs of Significance

- Recycling data excludes some private sector activities, in particular metals, tires, commercial yard waste, batteries, textiles.
- When figures not available, estimates were made.
- Landfills promote free yard waste drop off but do not weigh loads. Tonnage estimated as substantial but not included in statistics.
- Metals - Other includes appliances.
- Programs - Battery, Paint, etc. does not include materials collected under BC Paint and Product Care, as depots do not track this information - the provincial program does.

Columbia Shuswap Regional District

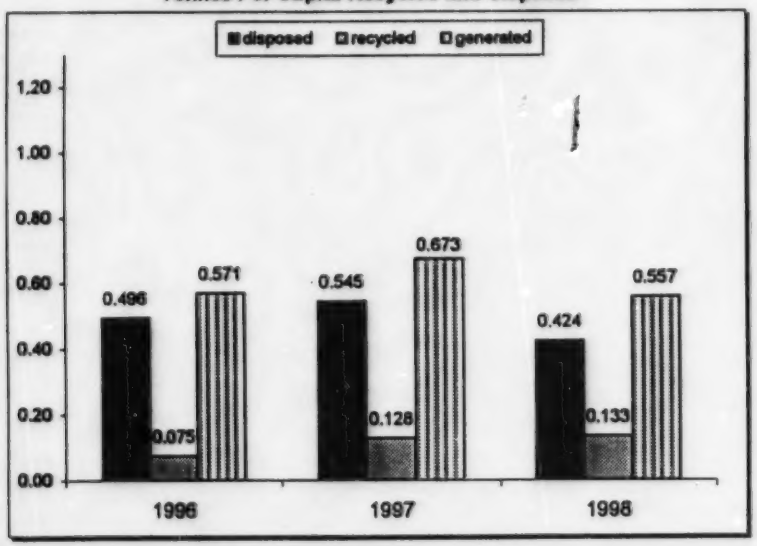
Regional District Area (km^2): 30,107

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	40,510	28,762	100%	0.710	15	0%	0.000	28,777	0.710
1996	48,115	23,852	87%	0.496	3,600	13%	0.075	27,452	0.571
1997	48,115	26,224	81%	0.545	6,174	19%	0.128	32,398	0.673
1998	52,256	22,140	76%	0.424	6,961	24%	0.133	29,101	0.557

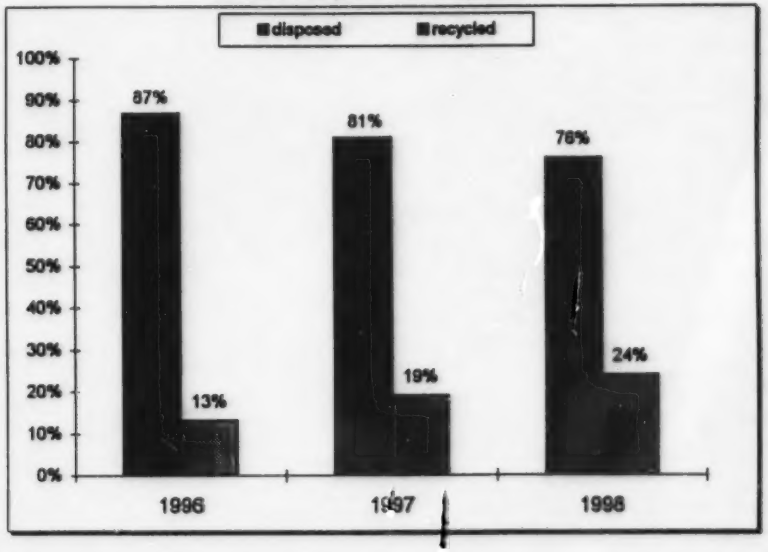
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Draft
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Columbia Shuswap Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	121.0	99.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	88.0	965.0
Metals	White Goods	812.0	78.0
Organic	Wood	1,193.0	1,272.0
Organic	Yard	1,670.0	2,126.0
Paper	Co-mingled	-	17.0
Paper	Corrugated	1,908.0	2,000.0
Paper	Fine	30.0	30.0
Paper	News	352.0	374.0
Plastic	All	-	-
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	6,174	6,961
Total Recycled Per Capita (tonnes)		0.13	0.13

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Salmon Arm Refuse Disp.	Landfilled	Yes	9,510.0	8,581.0
Sicamous Refuse Disp.	Landfilled	Yes	2,574.0	2,411.0
Revelstoke Refuse Disp.	Landfilled	Yes	6,592.0	4,719.0
Golden Refuse Disp.	Landfilled	Yes	3,905.0	3,555.0
Skimikin Refuse Disp.	Landfilled	Yes	3,643.0	2,874.0
		TOTAL	26,224.0	22,140.0

Notes and Programs of Significance

Comox-Strathcona Regional District

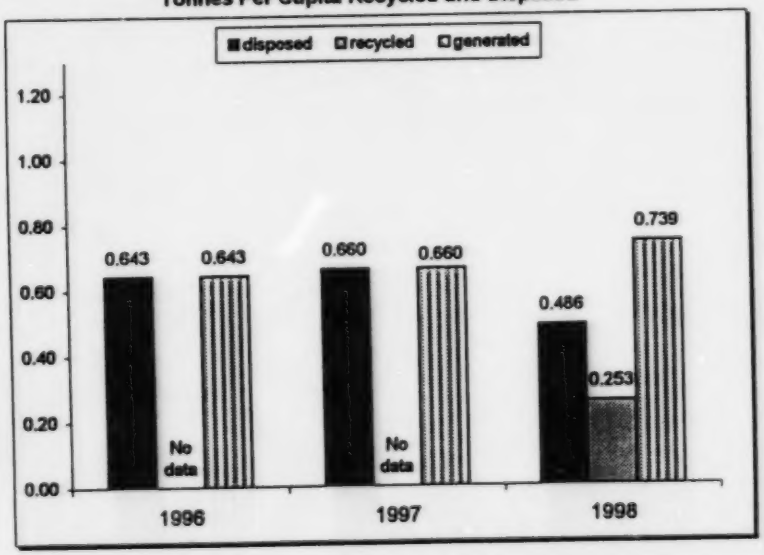
Regional District Area (km^2): 20,202

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	82,378	53,546	100%	0.650	0	0%	0.000	53,546	0.650
1996	97,667	62,779	No data	0.643	No data	No data	No data	62,779	0.643
1997	103,995	68,637	No data	0.660	No data	No data	No data	68,637	0.660
1998	101,085	49,092	66%	0.486	25,591	34%	0.253	74,683	0.739

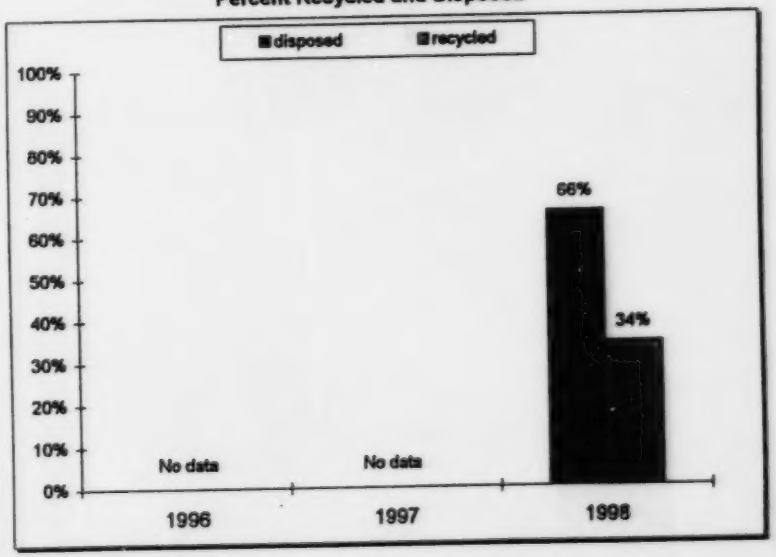
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Grouping/Previous MSW Tracking reports
Source of 1998 data: Regional District

Comox-Strathcona Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	459.1
Household	Other	-	-
Household	Propane Tanks	-	2.7
Inorganic	Asphalt	-	2,500.0
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	13,247.3
Metals	White Goods	-	1,553.3
Organic	Wood	-	1,512.6
Organic	Yard	-	466.1
Paper	Co-mingled	-	60.0
Paper	Corrugated	-	3,595.1
Paper	Fine	-	-
Paper	News	-	1,971.8
Plastic	All	-	79.5
Programs	Battery, paint, etc.	-	64.5
Rubber	Tires	-	79.2
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL		25,591
Total Recycled Per Capita (tonnes)		0.00	0.25

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Campbell River	Landfilled	Yes		25,009.9
Pidgeon Lake	Landfilled	Yes		23,383.4
Gold River	Landfilled	No		698.9
		TOTAL	-	49,092.2

Notes and Programs of Significance

- Residential recycling program began in Cctober 1997.
- 1997 breakdown of waste recycled or disposed by facility not available.
- Gold River shows such low tonnage because waste exported to Campbell River facility since May 1998.
- DLC waste not accepted at any regional facilities.
- Recycling coordinator hired August 1997.

Cowichan Valley Regional District

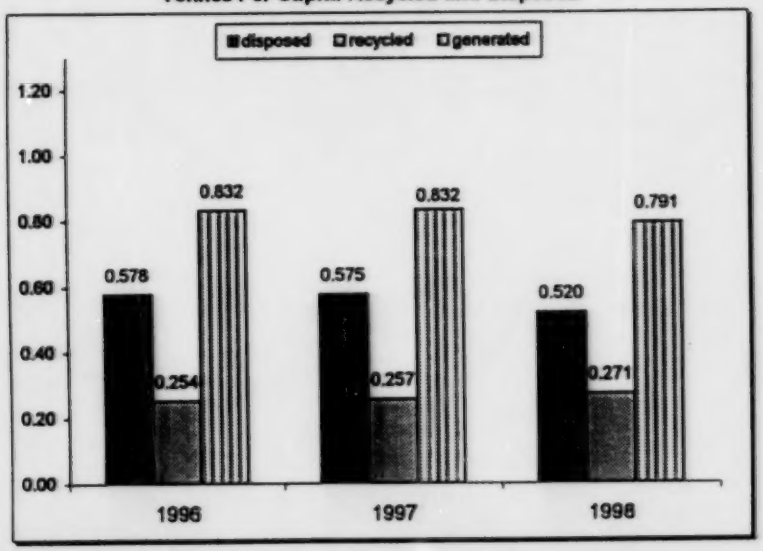
Regional District Area (km^2): 3,730

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	59,059	45,475	93%	0.770	3,662	7%	0.062	49,137	0.832
1996	70,978	41,032	69%	0.578	18,021	31%	0.254	59,053	0.832
1997	72,691	41,820	69%	0.575	18,691	31%	0.257	60,511	0.832
1998	73,735	38,323	66%	0.520	20,019	34%	0.271	58,342	0.791

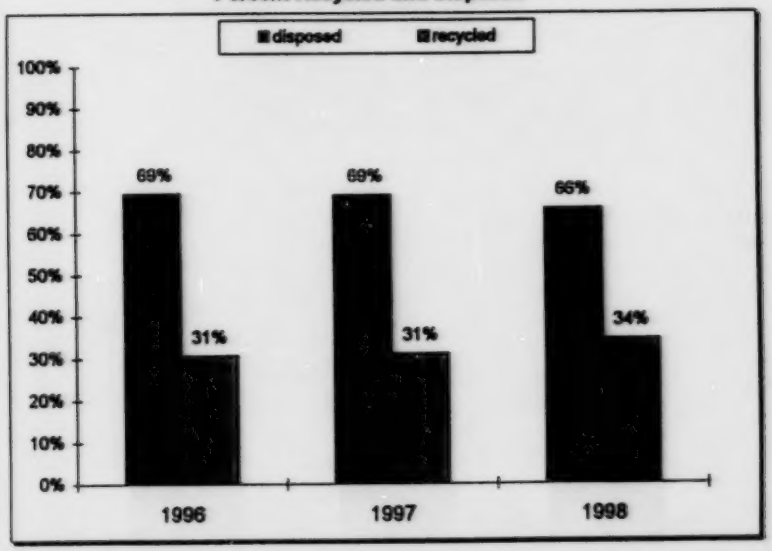
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Cowichan Valley Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	969.0	968.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	700.0	2,100.0
Inorganic	Co-mingled	-	337.0
Inorganic	Concrete	800.0	-
Inorganic	Gypsum	569.0	383.0
Metals	Other	5,016.0	5,012.0
Metals	White Goods	-	-
Organic	Wood	119.0	-
Organic	Yard	3,904.0	3,906.0
Paper	Co-mingled	1,174.0	1,274.0
Paper	Corrugated	3,327.0	3,836.0
Paper	Fine	963.0	974.0
Paper	News	945.0	941.0
Plastic	All	6.0	12.0
Programs	Battery, paint, etc.	50.0	78.0
Rubber	Tires	121.0	176.0
Textiles	All	28.0	22.0
Recyclables	Co-mingled	-	-
	TOTAL	18,691	20,019
Total Recycled Per Capita (tonnes)		0.26	0.27

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Koksilah Landfill	Landfilled	Yes	13,251.0	4,674.0
Koksilah TRP #2	Incinerated	Yes	10,251.0	9,734.0
Meade Creek TRP #1	Incinerated	Yes ('98)	3,468.0	2,572.0
Peerless Road TRP #3	Incinerated	Yes	3,601.0	3,216.0
Private Facilities		No	11,249.0	10,500.0
(e.g., burn pits)				
Alternative Disposal		No	No estimate	No estimate
(e.g., backyard burning)				
Bings Creek Transfer Stn.	Exported	Yes		7,627.0
(to Cache Creek Landfill)				
		TOTAL	41,820.0	38,323.0

Notes and Programs of Significance

- Statistics are for entire regional district and contain data provided by private companies which are presumed accurate at time of receipt.
- Asphalt Roofing Material recycling planned for 1999.
- Restructuring recycling contracts away from revenue sharing reduced costs by 40%.
- Factors other than recycling influencing decrease in 1998 Waste Disposed:
  - waste export disposal restrictions (exporting to Cache Creek);
  - out-of-region disposal (i.e. leakage to adjacent regional districts); and
  - downward trend in building/consumer activity.

East Kootenay Regional District

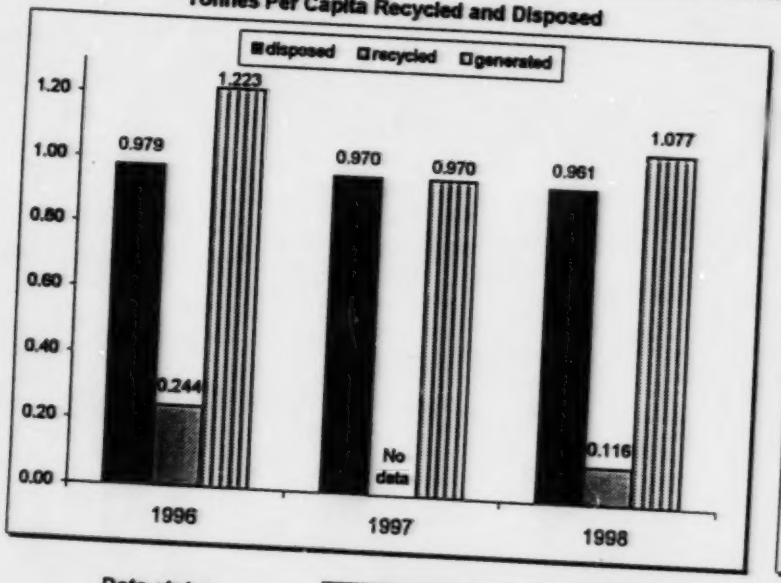
Regional District Area (km^2): 27,658

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	48,773	34,141	100%	0.700	0	0%	0.000	34,141	0.700
1996	56,366	55,209	80%	0.979	13,745	20%	0.244	68,954	1.223
1997	56,366	54,675	No data	0.970	No data	No data	No data	54,675	0.970
1998	56,366	54,167	89%	0.961	6,558	11%	0.116	60,725	1.077

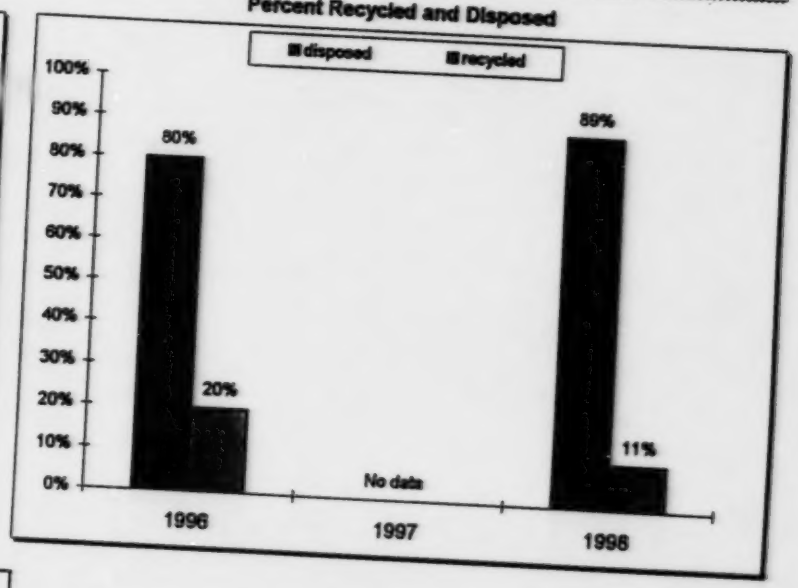
Approved solid waste management plan (SWMP): In process

SWMP State of implementation: n/a

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District

Source of 1990 data: Grouping/Previous MSW Tracking reports

Source of 1996 data: Regional District

Source of 1997 data: Grouping/Previous MSW Tracking reports

Source of 1998 data: Regional District

East Kootenay Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled		42.8
Household	Other		-
Household	Propane Tanks		-
Inorganic	Asphalt		-
Inorganic	Co-mingled		-
Inorganic	Concrete		-
Inorganic	Gypsum		-
Metals	Other		2,343.6
Metals	White Goods		213.6
Organic	Wood		623.0
Organic	Yard		195.0
Paper	Co-mingled		602.8
Paper	Corrugated		1,385.0
Paper	Fine		101.0
Paper	News		550.3
Plastic	All		44.1
Programs	Battery, paint, etc.		-
Rubber	Tires		456.4
Textiles	All		-
Recyclables	Co-mingled		-
	TOTAL		6,558
Total Recycled Per Capita (tonnes)			0.12

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Windermere	Landfilled	No		11,000.0
Kimberley	Landfilled	No		6,700.0
Cranbrook	Landfilled	No		29,772.0
Fernie	Landfilled	No		3,650.0
Sparwood	Landfilled	No		2,468.0
Elkford	Landfilled	No		577.0
		TOTAL	-	54,167.0

Notes and Programs of Significance

- New landfills and transfer stations with weigh scales are being implemented in regional district. As a result, regional district expects to be able to provide data in the future.
- 1997 disposal rate estimated using grouping/previous MSW reports.
- Breakdown of recycled and disposed waste not available for 1997.

Fraser-Fort George Regional District

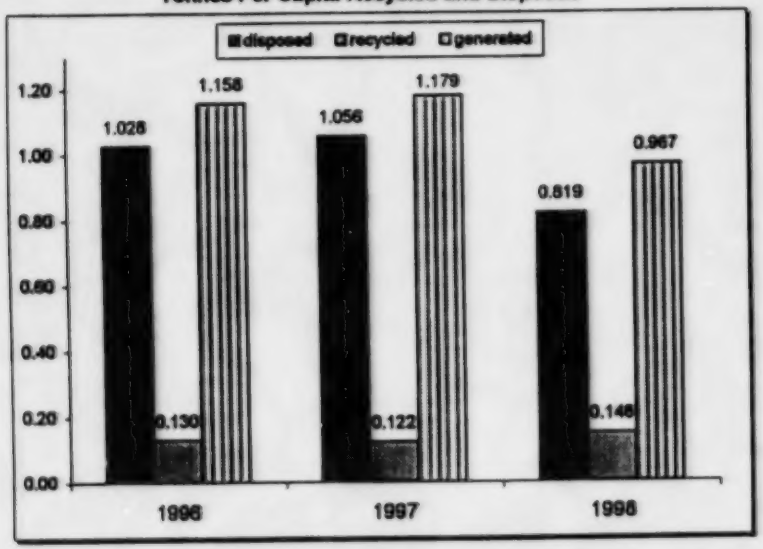
Regional District Area (km^2): 52,000

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	85,971	60,180	100%	0.700	16	0%	0.000	60,195	0.700
1996	98,974	101,782	89%	1.028	12,855	11%	0.130	114,637	1.158
1997	101,349	107,044	90%	1.056	12,414	10%	0.122	119,458	1.179
1998	103,782	85,041	85%	0.819	15,336	15%	0.148	100,377	0.967

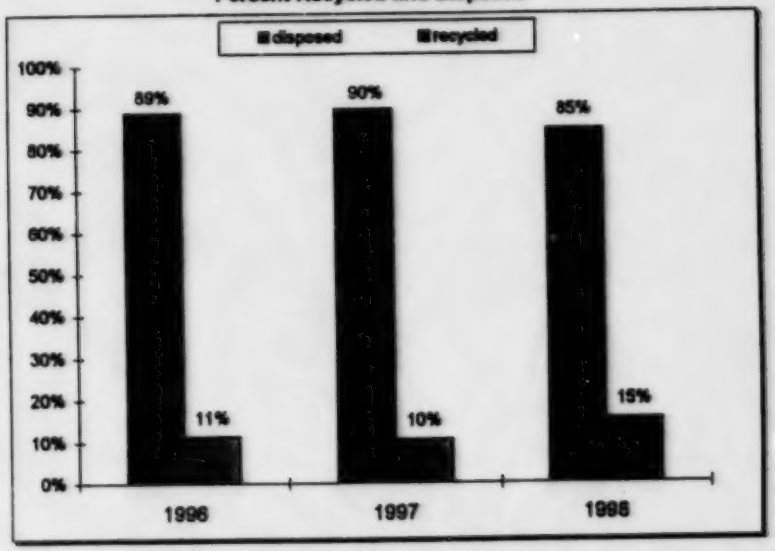
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Fraser-Fort George Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	184.4	169.0
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	764.6	1,180.0
Metals	White Goods	58.3	190.5
Organic	Wood	215.5	52.3
Organic	Yard	5,263.6	6,071.0
Paper	Co-mingled	5,760.4	6,291.6
Paper	Corrugated	55.4	93.9
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	5.8
Programs	Battery, paint, etc.	-	1,155.0
Rubber	Tires	111.5	127.0
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	12,414	15,336
Total Recycled Per Capita (tonnes)		0.12	0.15

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Foothills Blvd. Landfill	Landfilled	Yes	93,069.8	75,921.0
Mackenzie Reg. Landfill	Landfilled	Yes ('98)	5,709.9	3,714.0
Legrand Reg. Landfill	Landfilled	No	2,386.4	2,356.0
Berman Reg. Landfill	Landfilled	No	480.0	392.3
West Lake Reg. Landfill	Landfilled	No	849.4	Closed
Mud River Reg. Landfill	Landfilled	No	499.9	412.3
Hixon Reg. Landfill	Landfilled	No	559.9	379.3
Stone Creek Reg. Landfill	Landfilled	No	259.9	212.8
Aleza Lake Reg. Landfill	Landfilled	No	262.4	Closed
Bear Lake Reg. Landfill	Landfilled	No	430.0	349.0
Chief Lake Reg. Landfill	Landfilled	No	866.7	Closed
Other Regional Landfills	Landfilled	No	1,669.7	1,304.5
		TOTAL	107,044.0	85,041.0

Notes and Programs of Significance

- Waste disposed data includes DLC waste.
- Tire data based on data collected at RD facilities .
- Tire data is inclusive of any provincial data from the provincial tire program.
- No data available for batteries.
- 3 rural landfills closed - Aleza Lake, Chief Lake and West Lake.
- In 1998, four landfills were closed; Bear Lk, Summit Lk, Willow R and Hixon.
- Factors resulting in large decrease between '97 and '98 are:
  - large inputs of DLC waste attributed to 1997 demolition of an old mall.
  - increase in 1998 of DLC tipping fees from $30 to $40 per tonne.
  - growth in waste reduction activities such as asphalt and concrete recycling.

Fraser Valley Regional District

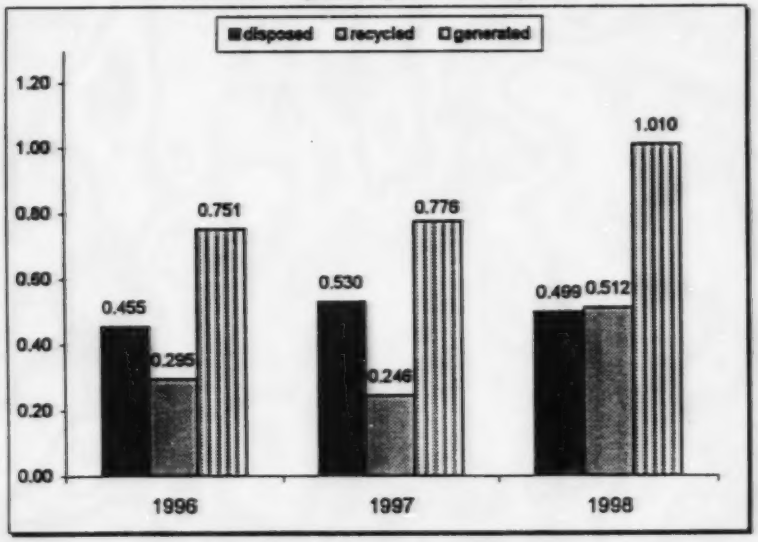
Regional District Area (km^2): 13,000

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	209,641	198,111	100%	0.945	0	0%	0.000	198,111	0.945
1996	222,397	101,273	61%	0.455	65,663	39%	0.295	166,936	0.751
1997	234,159	124,066	68%	0.530	57,525	32%	0.246	181,591	0.776
1998	237,128	118,309	49%	0.499	121,304	51%	0.512	239,613	1.010

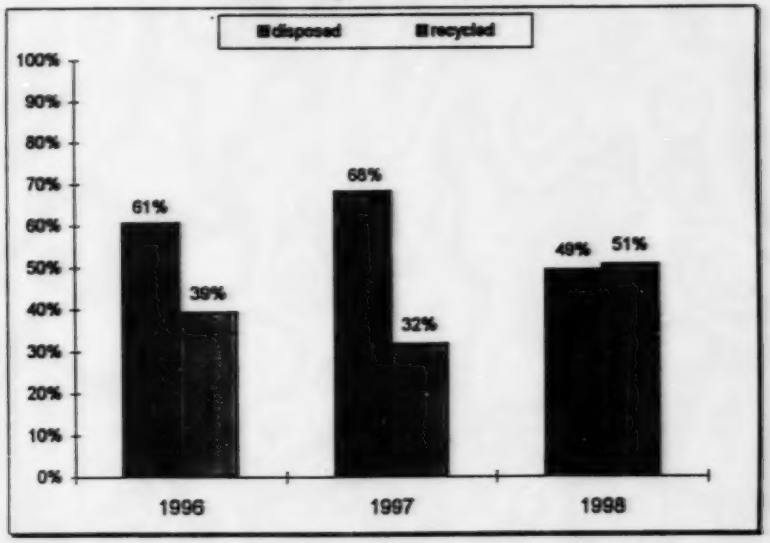
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Fraser Valley Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	1,583.4	5,117.5
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	7,243.4	16,806.8
Inorganic	Co-mingled	-	5,585.8
Inorganic	Concrete	-	33,454.8
Inorganic	Gypsum	811.8	2,391.9
Metals	Other	5,038.8	9,907.6
Metals	White Goods	-	-
Organic	Wood	10,155.6	318.0
Organic	Yard	-	18,577.7
Paper	Co-mingled	684.1	1,580.4
Paper	Corrugated	5,456.6	9,396.6
Paper	Fine	316.8	347.4
Paper	News	4,714.3	5,586.1
Plastic	All	259.4	250.7
Programs	Battery, paint, etc.	1,267.9	608.1
Rubber	Tires	459.7	567.4
Textiles	All	-	61.9
Recyclables	Co-mingled	19,533.7	10,745.3
	TOTAL	57,525	121,304
Total Recycled Per Capita (tonnes)		0.25	0.51

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Minnie's Pit, Mission	Landfilled	Yes	12,114.7	13,213.0
Bailey Landfill , Chilliwack	Landfilled	Yes	24,423.0	22,458.6
Hope Landfill	Landfilled	Yes	2,845.2	3,025.0
Chaumox RD, North Bend	Landfilled	No	340.0	340.0
Cultus Lake Park Board	Landfilled	No	540.0	632.9
Matsqui Transfer Station	Exported	Yes	48,803.0	46,554.0
Estimated Waste Migration	n/a	No	35,000.0	32,085.0
(in non-auth. facilities)				
		TOTAL	124,065.9	118,308.5

Notes and Programs of Significance

- Generation and disposal estimates may be underestimated as waste not entering regional facilities is uncertain. Amounts recycled outside RD facilities are unknown.
- Estimated waste migration (32,085 tonnes) accounts for waste disposed only.
- DLC waste migration to unauthorized facilities estimated by RD for 1997/98.
- LC debris includes measured amounts from authorized facilities only.
- Estimated Product Stewardship Recycling is included in the 1998 figures; calculated using population as percentage of total BC tonnages.
- Figures not directly measurable estimated from waste studies & relevant agencies.
- 1998 recycled waste breakdown and large increase in recycling reflects more accurate figures obtained from industry.

Greater Vancouver Regional District

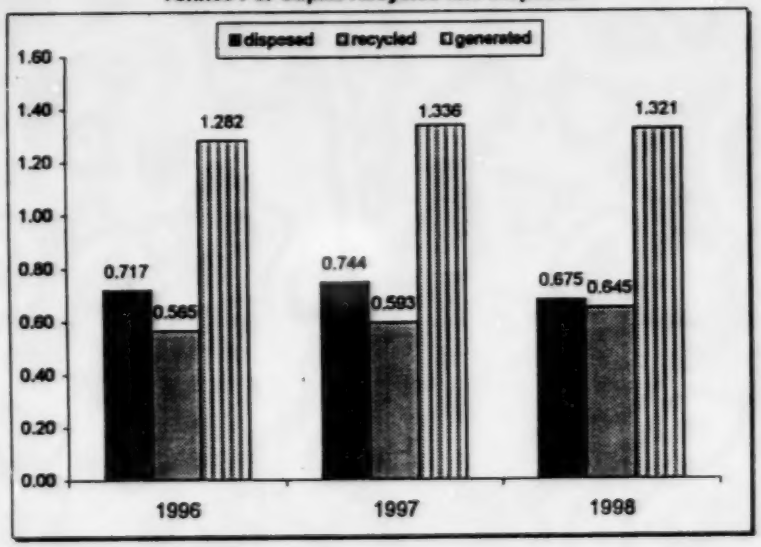
Regional District Area (km^2): 2,930

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	1,610,899	1,594,790	72%	0.990	631,000	28%	0.392	2,225,790	1.382
1996	1,898,687	1,360,682	56%	0.717	1,072,691	44%	0.565	2,433,373	1.282
1997	1,934,210	1,438,608	56%	0.744	1,146,458	44%	0.593	2,585,066	1.336
1998	1,978,848	1,336,671	51%	0.675	1,276,430	49%	0.645	2,613,101	1.321

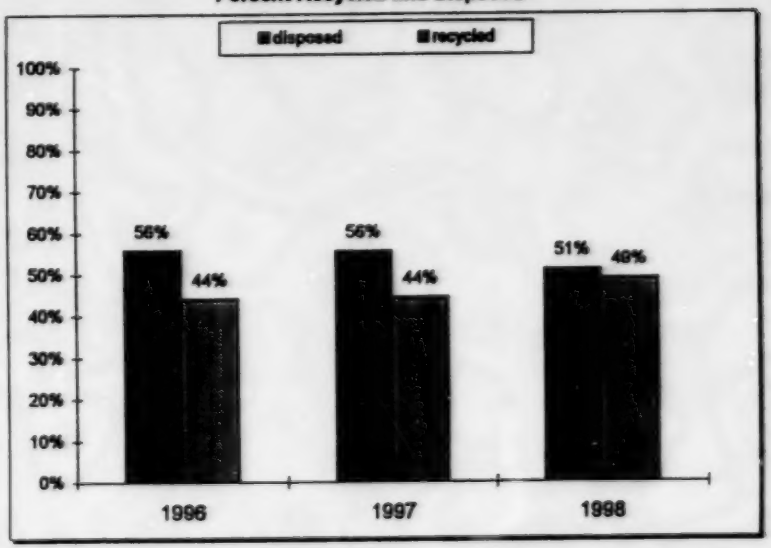
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Greater Vancouver Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	20,425.0	13,607.0
Household	Other	14,564.0	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	139,933.0	170,447.0
Inorganic	Co-mingled	-	-
Inorganic	Concrete	316,459.0	363,000.0
Inorganic	Gypsum	70,192.0	55,778.0
Metals	Other	9,992.0	46,466.0
Metals	White Goods	16,871.0	-
Organic	Wood	52,786.0	41,251.0
Organic	Yard	156,107.0	192,722.0
Paper	Co-mingled	154,440.0	123,812.0
Paper	Corrugated	118,648.0	134,340.0
Paper	Fine		
Paper	News	35,398.0	77,947.0
Plastic	All	23,500.0	24,660.0
Programs	Battery, paint, etc.	9,162.0	11,435.0
Rubber	Tires	7,328.0	7,990.0
Textiles	All	-	-
Recyclables	Co-mingled	653.0	12,975.0
	TOTAL	1,146,458	1,276,430
Total Recycled Per Capita (tonnes)		0.59	0.65

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Port Mann Landfill	Landfilled	Yes	154,790.0	Closed
Vancouver Landfill	Landfilled	Yes	357,849.0	377,098.0
Burnaby Incinerator	Incinerated	Yes	257,127.0	247,337.0
Cache Creek Landfill	Landfilled	Yes	332,342.0	428,319.0
Private DLC Landfills	Landfilled	Yes	336,500.0	283,917.0
		TOTAL	1,438,608.0	1,336,671.0

Notes and Programs of Significance

- Although Abbotsford waste is exported to the GVRD waste system, its population and disposed waste totals are included in the FVRD, where it is generated.
- Recycling figures include Abbotsford population and tonnages.
- OCC ban reduced recycleable OCC from 7% to 2.6% of waste stream by weight.
- Jobsite Recycling program assists DLC recycling in GVRD.
- Top 40 Recycling Hits provides waste reduction tips for residents.
- Recycling Works assists 1000s of businesses implement recycling programs.
- Excludes 3739 tonnes of sewage treatment residuals which are not MSW, but were received at Vancouver Landfill in 1998.
- The Port Mann Landfill closed in 1997.

Kitimat-Stikine Regional District

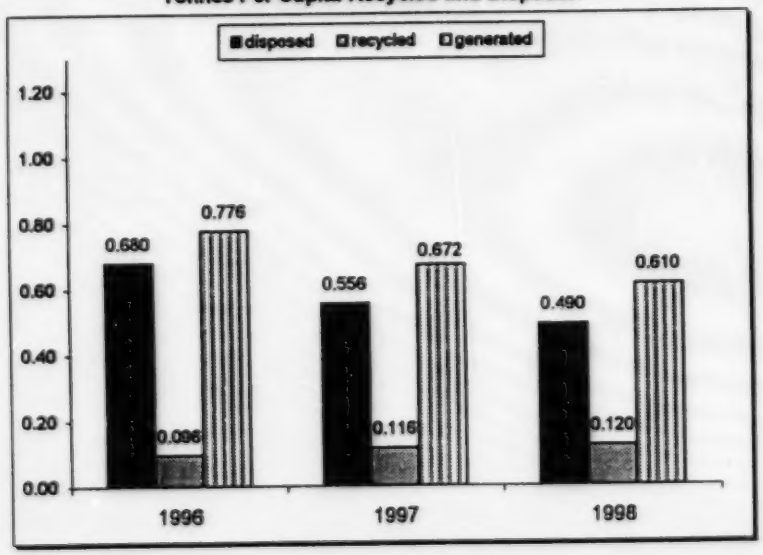
Regional District Area (km^2): 91,909

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	39,431	27,602	100%	0.700	0	0%	0.000	27,602	0.700
1996	43,618	29,660	88%	0.680	4,176	12%	0.096	33,836	0.776
1997	44,141	24,559	83%	0.556	5,101	17%	0.116	29,660	0.672
1998	44,671	21,869	80%	0.490	5,381	20%	0.120	27,249	0.610

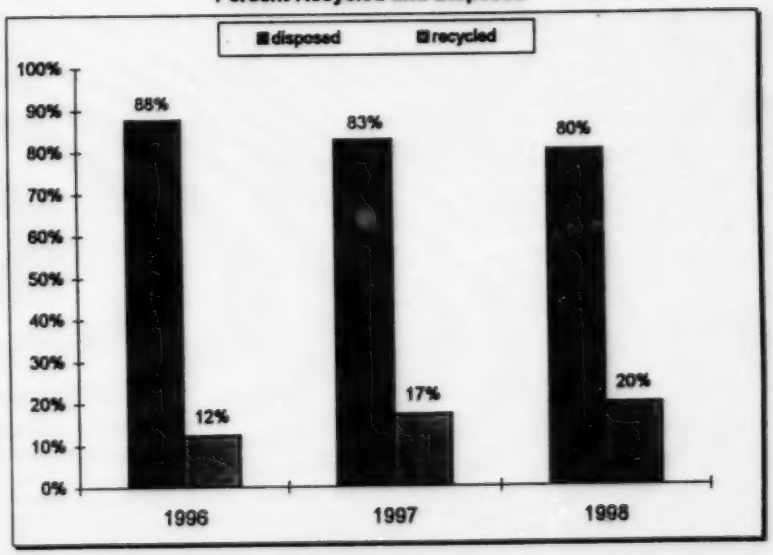
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Kitimat-Stikine Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	754.0	736.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	2,800.0	3,160.0
Metals	White Goods	340.0	361.0
Organic	Wood	119.0	-
Organic	Yard	145.0	155.0
Paper	Co-mingled	-	-
Paper	Corrugated	-	80.0
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	24.0	-
Programs	Battery, paint, etc.	12.0	24.5
Rubber	Tires	539.0	514.0
Textiles	All	102.0	102.0
Recyclables	Co-mingled	266.0	248.0
	TOTAL	5,101	5,381
Total Recycled Per Capita (tonnes)		0.12	0.12

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Thornhill	Landfilled	No		
Hazelton	Landfilled	No		
Kitwanga	Landfilled	No		
Iskut	Landfilled	No		
Rosswood	Landfilled	No		
				-
		TOTAL	-	-

Notes and Programs of Significance

- All figures are estimates and extrapolated from approximate material weights and population.
- 1997 and 1998 population estimates based on 1.2 % growth from 1996 census.
- Estimate of 1998 waste generated based on assumption that each person in the Regional District produces 0.61 tonnes of waste, both recycled or disposed.
- Breakdown of disposed waste by facility type not available.
- Metals - all includes commerically salvaged autosand scrap metals from regional facilities.

Kootenay Boundary Regional District

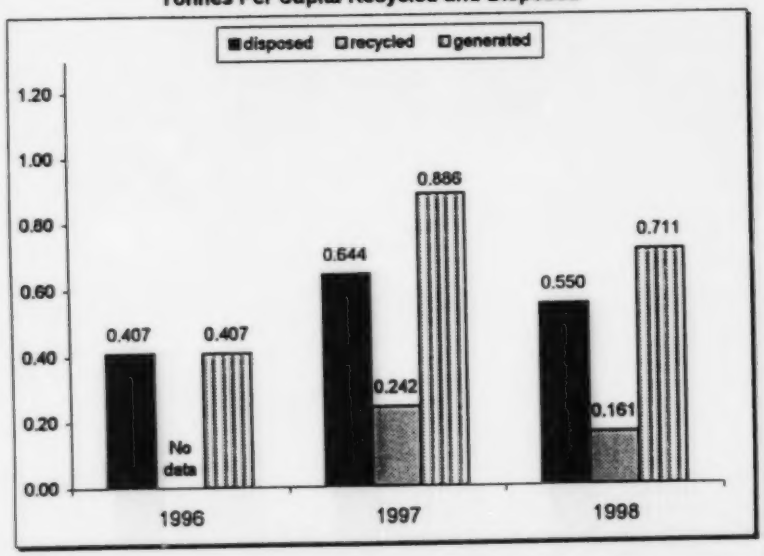
Regional District Area (km^2): 8,300

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	30,425	25,861	100%	0.850	0	0%	0.000	25,861	0.850
1996	32,906	13,409	No data	0.407	No data	No data	No data	13,409	0.407
1997	32,906	21,197	73%	0.644	7,953	27%	0.242	29,150	0.886
1998	34,309	18,873	77%	0.550	5,523	23%	0.161	24,396	0.711

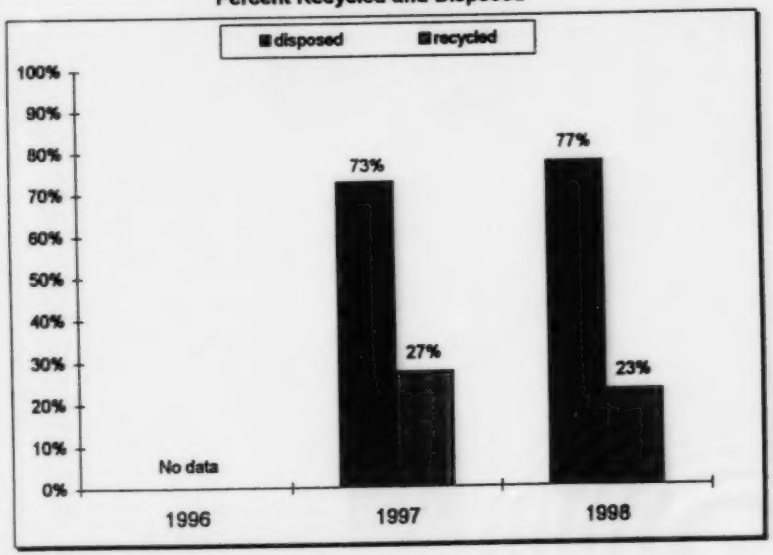
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Kootenay Boundary Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	241.0	256.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	650.0	1,272.0
Metals	White Goods	-	-
Organic	Wood	5,000.0	2,000.0
Organic	Yard	500.0	200.0
Paper	Co-mingled	484.0	609.0
Paper	Corrugated	750.0	799.0
Paper	Fine	-	-
Paper	News	223.0	230.0
Plastic	All	-	39.0
Programs	Battery, paint, etc.	10.0	14.0
Rubber	Tires	95.0	104.0
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	7,953	5,523
Total Recycled Per Capita (tonnes)		0.24	0.16

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Beaverdell	Landfilled	No	300.0	300.0
Christina Lake	Landfilled	No	1,000.0	1,000.0
Grand Forks	Landfilled	Yes	6,747.0	4,323.0
Greenwood	Landfilled	No	500.0	500.0
McKelvey Creek	Landfilled	Yes ('98)	12,300.0	12,400.0
Rock Creek	Landfilled	No	350.0	350.0
Midway	Landfilled	No	n/a	n/a
		TOTAL	21,197.0	18,873.0

Notes and Programs of Significance

- Midway landfill figures not available.

Mount Waddington Regional District

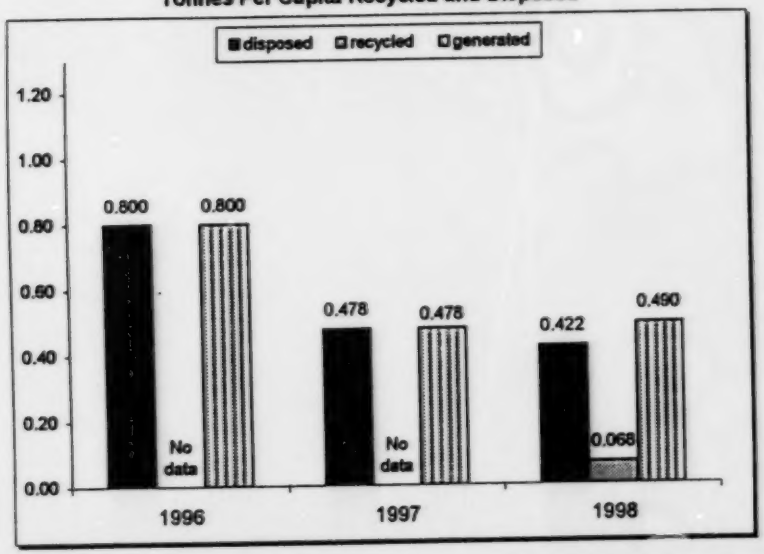
Regional District Area (km^2): 21,464

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	14,086	12,677	97%	0.900	400	3%	0.028	13,077	0.928
1996	13,896	11,117	No data	0.800	No data	No data	No data	11,117	0.800
1997	15,392	7,359	No data	0.478	No data	No data	No data	7,359	0.478
1998	15,000	6,328	86%	0.422	1,024	14%	0.068	7,352	0.490

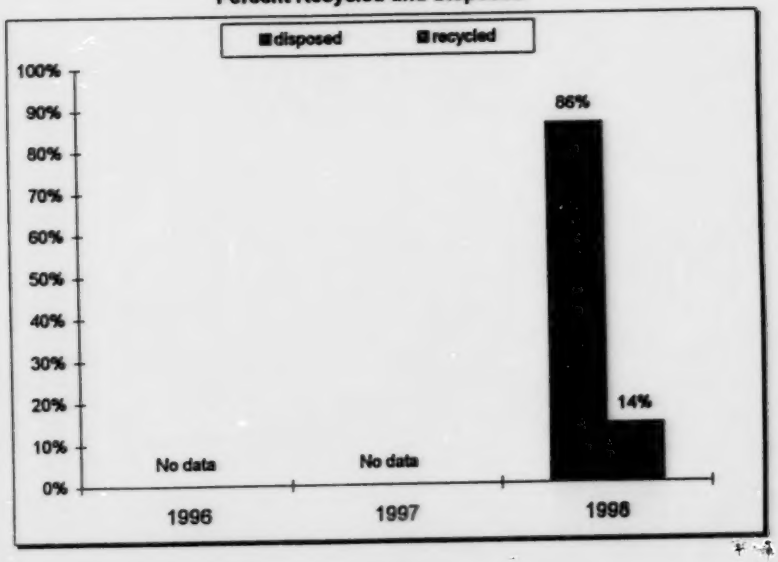
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Mount Waddington Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	123.0
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	-	71.0
Paper	Corrugated	-	202.0
Paper	Fine	-	18.0
Paper	News	-	36.0
Plastic	All	-	6.0
Programs	Battery, paint, etc.	-	552.0
Rubber	Tires	-	16.0
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL		1,024
Total Recycled Per Capita (tonnes)		0.00	0.07

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Seven Mile	Landfilled	Yes		6,288.0
Winter Harbour	Landfilled	No		10.0
Holberg	Landfilled	No		30.0
Malcolm Island	Landfilled	No		No data
Woss	Landfilled	No		Closed
		TOTAL	-	6,328.0

Notes and Programs of Significance

- Source for 1997 population figure: B.C. STATS.
- Programs - Battery, Paint, etc. includes 507 tonnes of fish compost.
- Disposed waste breakdown not available for 1997.
- Recycled waste breakdown not available for 1997.
- Estimates of recycling tonnages NOT AVAILABLE for 1996 and 1997, although Regional District actively involved in recycling.

Nanaimo Regional District

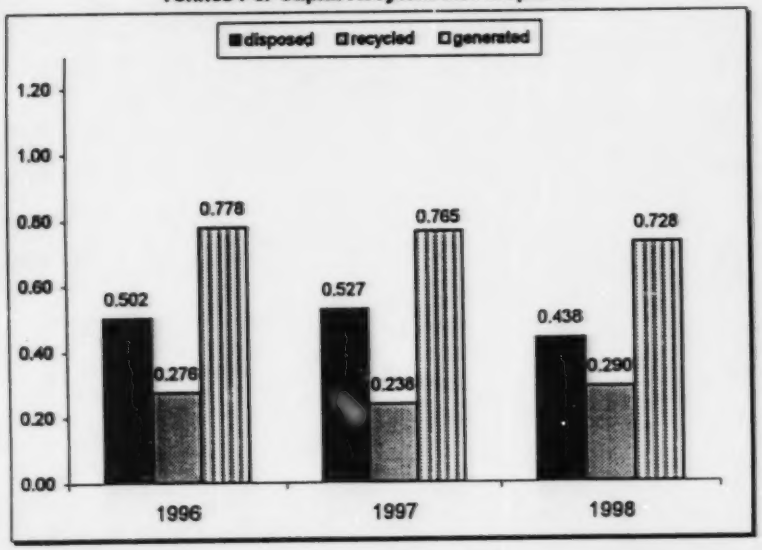
Regional District Area (km^2): 2,041

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	91,879	50,533	100%	0.550	0	0%	0.000	50,533	0.550
1996	125,000	62,788	65%	0.502	34,477	35%	0.276	97,265	0.778
1997	132,000	69,535	69%	0.527	31,386	31%	0.238	100,921	0.765
1998	132,442	58,058	60%	0.438	38,362	40%	0.290	96,420	0.728

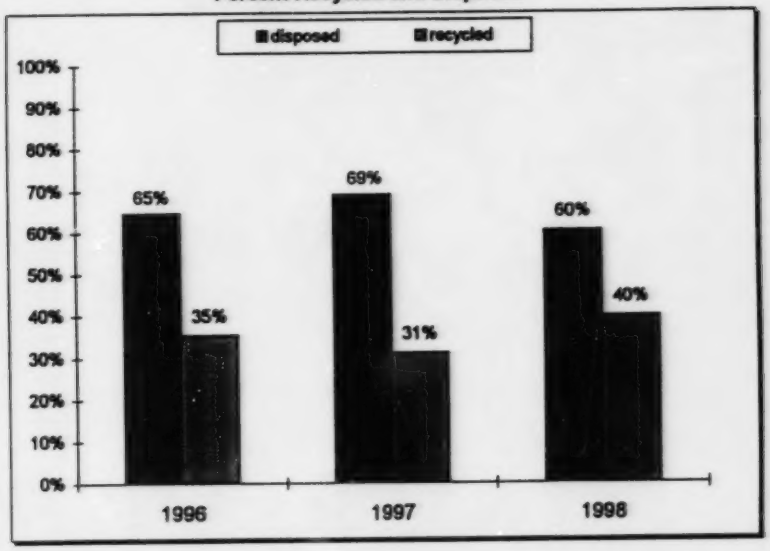
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Nanaimo Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	-
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	3,221.0	5,094.0
Paper	Co-mingled	-	-
Paper	Corrugated	-	-
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	-
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	28,165.0	33,268.0
	TOTAL	31,386	38,362
Total Recycled Per Capita (tonnes)		0.24	0.29

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
RDN SW Mngt. Facility	Landfilled	Yes	69,535.0	58,058.0
		TOTAL	69,535.0	58,058.0

Notes and Programs of Significance

- 1997 total waste disposed includes 9984 tonnes of DLC waste.
- RD diverted an additional 5026 tonnes of waste from landfills through waste reduction programs.

North Okanagan Regional District

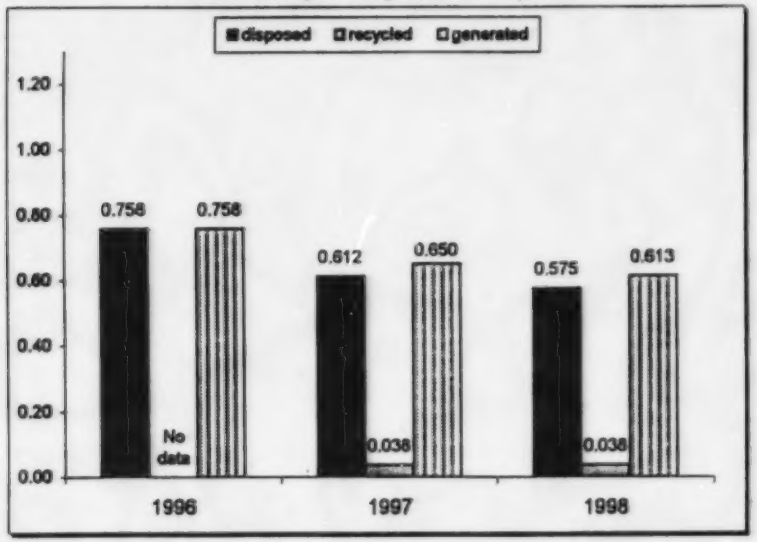
Regional District Area (km^2): 7,872

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	57,611	59,915	98%	1.040	954	2%	0.017	60,869	1.057
1996	73,266	55,541	No data	0.758	No data	No data	No data	55,541	0.758
1997	73,266	44,875	94%	0.612	2,750	6%	0.038	47,625	0.650
1998	75,240	43,272	94%	0.575	2,844	6%	0.038	46,116	0.613

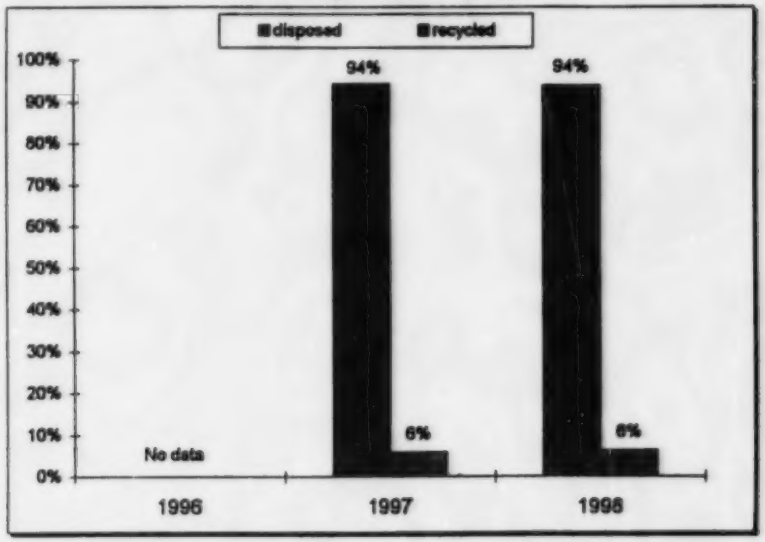
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

North Okanagan Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	295.0	229.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	53.0	37.0
Metals	White Goods	290.0	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	440.0	1,598.0
Paper	Corrugated	324.0	203.0
Paper	Fine	29.0	49.0
Paper	News	1,288.0	691.0
Plastic	All	31.0	37.0
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	2,750	2,844
Total Recycled Per Capita (tonnes)		0.04	0.04

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Greater Vernon	Landfilled	Yes	33,122.0	32,058.0
Armstrong/Spallumcheem	Landfilled	No	9,588.0	9,350.0
Kingfisher	Landfilled	No	99.0	127.0
Lumby and Area "D"	Landfilled	No	1,888.0	1,543.0
Cherryville and Area "E"	Landfilled	No	178.0	194.0
		TOTAL	44,875.0	43,272.0

Notes and Programs of Significance

Northern Rockies Regional District

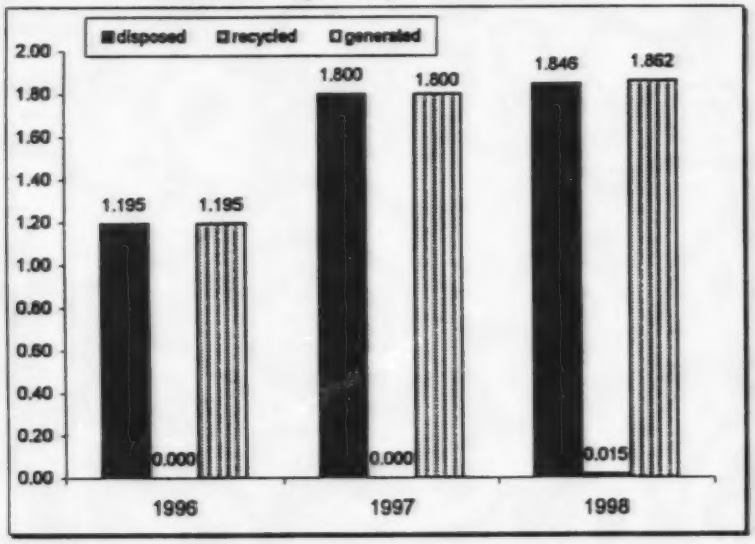
Regional District Area (km^2): 80,000

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	4,565	8,217	100%	1.800	0	0%	0.000	8,217	1.800
1996	5,856	7,000	100%	1.195	0	0%	0.000	7,000	1.195
1997	6,414	11,545	100%	1.800	0	0%	0.000	11,545	1.800
1998	6,500	12,000	99%	1.846	100	1%	0.015	12,100	1.862

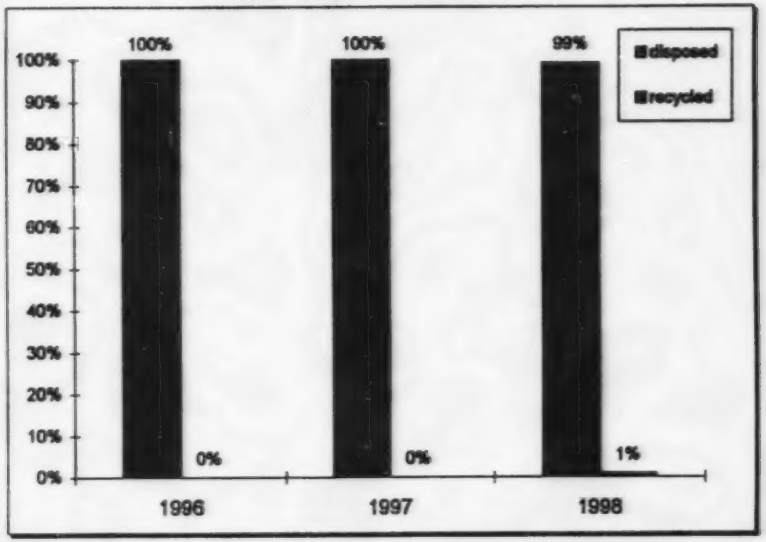
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Grouping/Previous MSW Tracking reports
Source of 1998 data: Regional District

Northern Rockies Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	-
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	-	-
Paper	Corrugated	-	-
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	-
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL		
Total Recycled Per Capita (tonnes)		0.00	0.00

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
		TOTAL	-	-

Notes and Programs of Significance

- 1997 disposal rate estimated by grouping/past MSW reports.
- 1997 data was not confirmed by regional district.
- Source for 1997 population figure: B.C. STATS.
- In the time period covered by this report, this RD was actually named Fort Nelson-Liard.
- Increase in SW from 1996 to 1998 may be attributed to more accurate tracking, resulting from the channeling of MSW to one facility having scales.

Okanagan-Similkameen Regional District

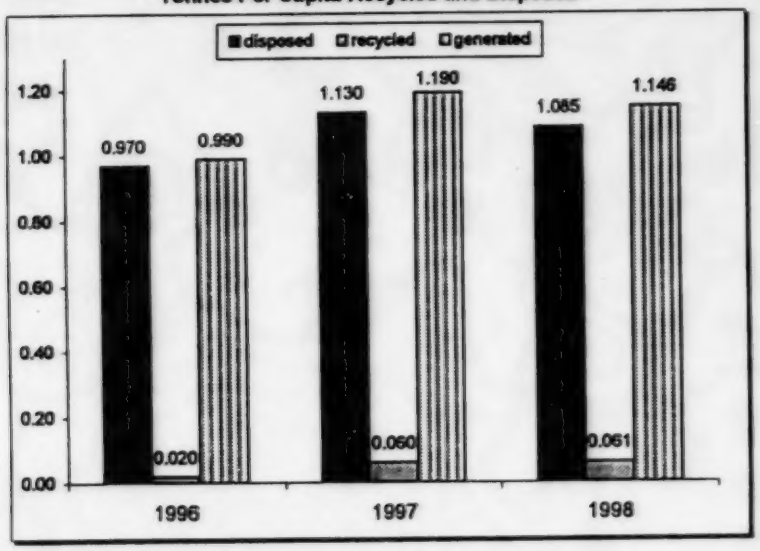
Regional District Area (km^2): 10,411

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	66,239	79,487	100%	1.200	0	0%	0.000	79,487	1.200
1996	75,900	73,623	98%	0.970	1,518	2%	0.020	75,141	0.990
1997	77,200	87,236	95%	1.130	4,632	5%	0.060	91,868	1.190
1998	78,700	85,400	95%	1.085	4,800	5%	0.061	90,200	1.146

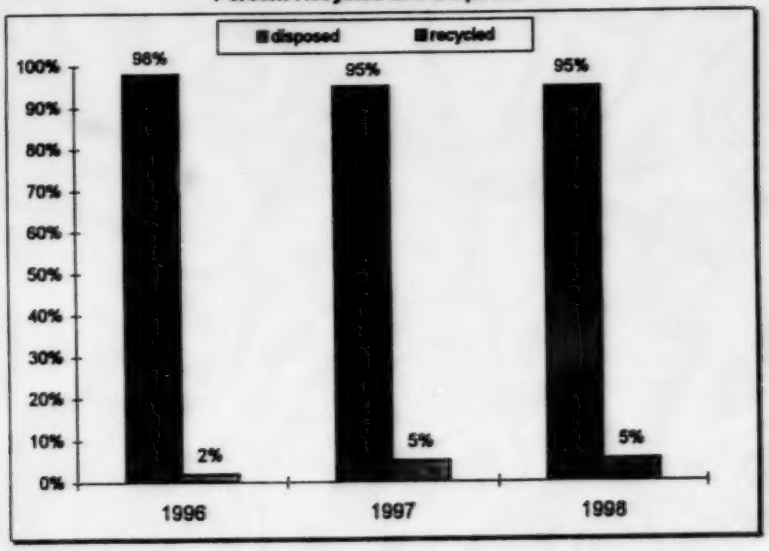
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Draft
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Okanagan-Similkameen Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	-
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	-	-
Paper	Corrugated	-	-
Paper	Fine	-	-
Paper	News	-	-
Plastic	All	-	-
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL		
Total Recycled Per Capita (tonnes)		0.00	0.00

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Keremeos Landfill	Landfilled	No		4,200.0
Campbell Mtn Landfill	Landfilled	Yes	35,700.0	32,100.0
Summerland Landfill	Landfilled	Yes	22,100.0	31,700.0
Oliver Landfill	Landfilled	Yes ('98)		5,700.0
Osoyoos Landfill	Landfilled	Yes	4,300.0	3,200.0
Okanagan Falls Landfill	Landfilled	No		3,600.0
Princeton Landfill	Landfilled	No		4,900.0
		TOTAL	62,100.0	85,400.0

Notes and Programs of Significance

- Tires, batteries, metals, newsprint, cardboard and boxboard are recycled.
- Breakdown for recycled waste not available.
- Wood and prunings are chipped and composted effective 1999.
- Oliver landfill scale commissioned December 1st, 1998.
- Waste disposed tonnages include DLC waste used for landfill cover requirements. These wastes weighed 15000 and 24000 tonnes in 1997 and 1998, respectively.
- No breakdown available for disposed waste at the Keremeos, Oliver, Okanagan Falls and Princeton landfills for 1997. Estimated total waste disposed at these facilities in 1997 is 25136 tonnes.

Peace River Regional District

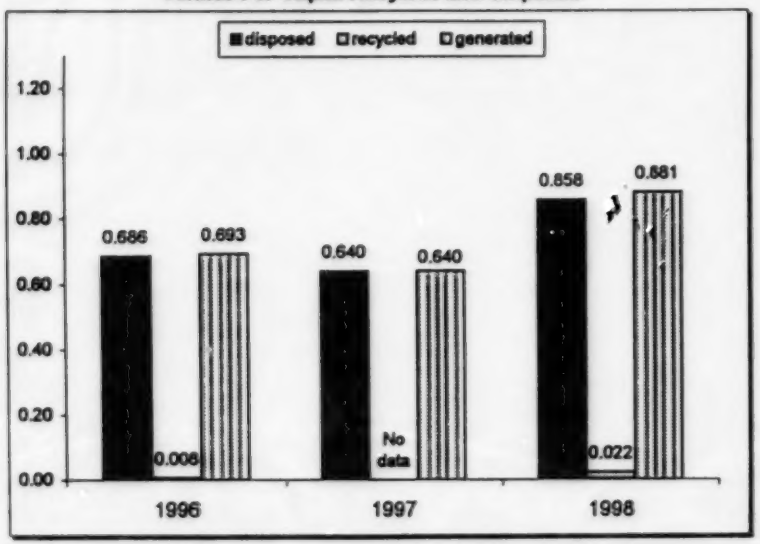
Regional District Area (km^2): 119,337

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	50,083	46,076	100%	0.920	0	0%	0.000	46,076	0.920
1996	55,545	38,090	99%	0.686	425	1%	0.008	38,515	0.693
1997	59,695	38,205	No data	0.640	No data	No data	No data	38,205	0.640
1998	60,000	51,500	97%	0.858	1,341	3%	0.022	52,841	0.881

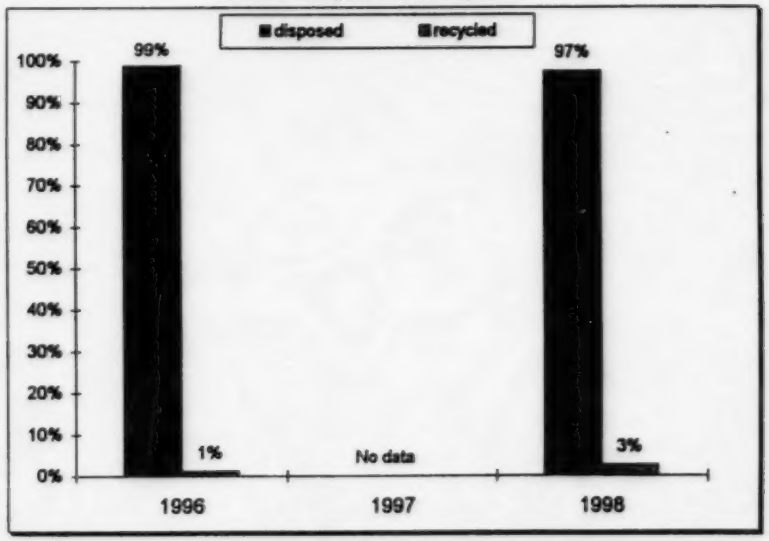
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Grouping/Previous MSW Tracking reports
Source of 1998 data: Regional District

Peace River Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	86.6
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	-	18.3
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	-	67.3
Paper	Corrugated	-	404.9
Paper	Fine	-	105.7
Paper	News	-	621.0
Plastic	All	-	15.7
Programs	Battery, paint, etc.	-	-
Rubber	Tires	-	-
Textiles	All	-	-
Recyclables	Co-mingled	-	21.4
	TOTAL		1,341
Total Recycled Per Capita (tonnes)		0.00	0.02

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
City of Fort St. John	Landfilled	No		28,000.0
City of Dawson Creek	Landfilled	No		14,000.0
City of Chetwynd	Landfilled	No		4,500.0
Mile 62.5	Landfilled	No		500.0
District of Hudson's Hope	Landfilled	No		1,100.0
Rose Prairie	Landfilled	No		400.0
District of Taylor	Landfilled	No		1,200.0
Village of Pouce Coupe	Landfilled	No		500.0
Bessborough	Landfilled	No		600.0
Cecil Lake	Landfilled	No		400.0
Moberly Lake	Landfilled	No		300.0
		TOTAL	-	51,500.0

Notes and Programs of Significance

- 1997 disposal rate estimated from grouping/previous MSW reports.
- 1997 data was not confirmed by regional district.
- Source for 1997 population figure: B.C. STATS.
- Recycled data not available for 1997.

Powell River Regional District

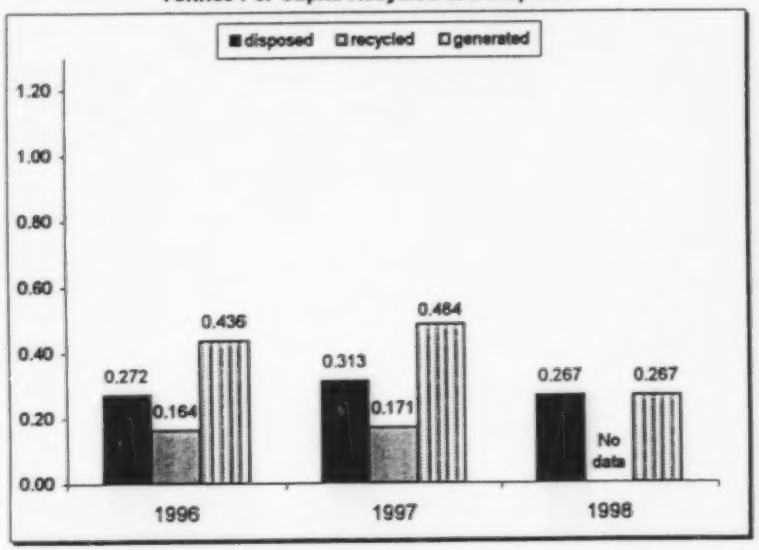
Regional District Area (km^2): 5,101

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	18,728	12,922	100%	0.690	0	0%	0.000	12,922	0.690
1996	20,603	5,610	62%	0.272	3,375	38%	0.164	8,985	0.436
1997	19,936	6,242	65%	0.313	3,413	35%	0.171	9,655	0.484
1998	21,124	5,645	No data	0.267	No data	No data	No data	5,645	0.267

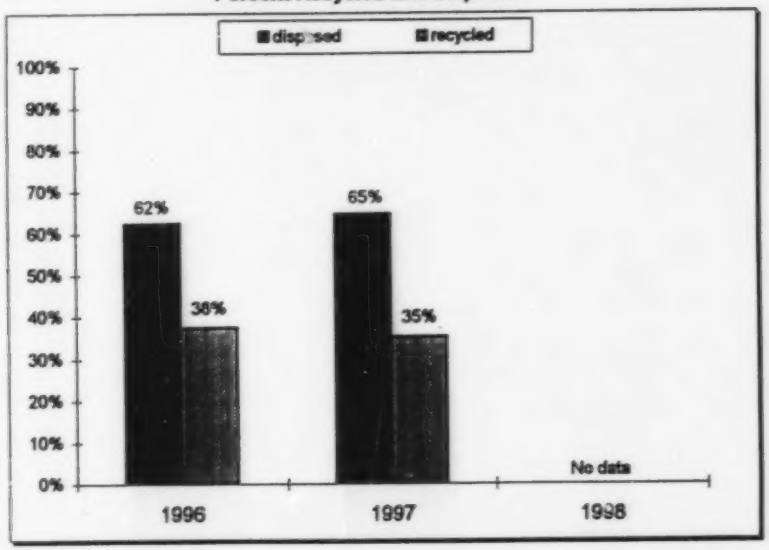
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Draft
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Powell River Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	97.0	-
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	35.0	-
Metals	Other	90.0	-
Metals	White Goods	-	-
Organic	Wood	-	-
Organic	Yard	2,626.0	-
Paper	Co-mingled	122.0	-
Paper	Corrugated	117.0	-
Paper	Fine	31.0	-
Paper	News	159.0	-
Plastic	All	72.0	-
Programs	Battery, paint, etc.	0.2	-
Rubber	Tires	64.0	-
Textiles	All	-	-
Recyclables	Co-mingled	-	-
	TOTAL	3,413	
Total Recycled Per Capita (tonnes)		0.17	0.00

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Roosevelt Washington	Exported	Yes	6,149.9	5,555.0
Lasqueti Island	Landfilled	No	91.7	90.0
		TOTAL	6,241.6	5,645.0

Notes and Programs of Significance

- 1998 population estimate: BC STATS.
- 1998 disposed waste breakdown by facility type not available.
- Recycled waste data not available for 1998.

Skeena-Queen Charlotte Regional District

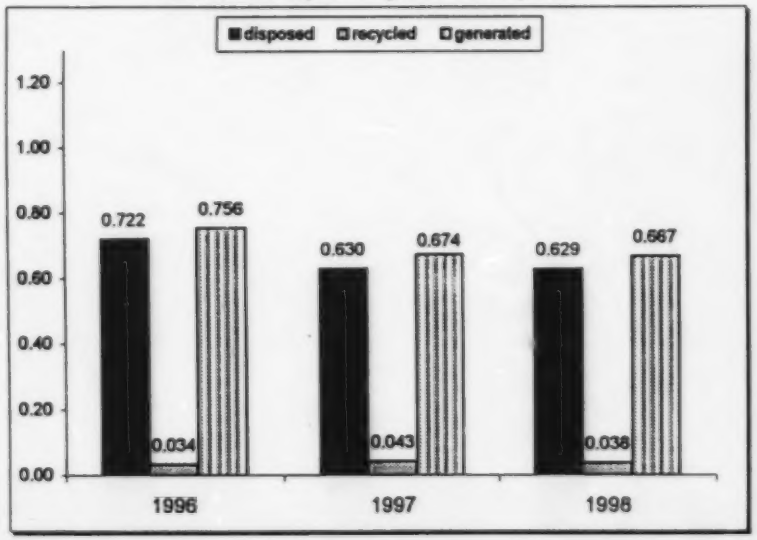
Regional District Area (km^2): 21,000

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	22,700	17,933	100%	0.790	36	0%	0.002	17,969	0.792
1996	23,121	16,685	96%	0.722	784	4%	0.034	17,469	0.756
1997	25,910	16,336	94%	0.630	1,123	6%	0.043	17,459	0.674
1998	24,795	15,606	94%	0.629	936	6%	0.038	16,542	0.667

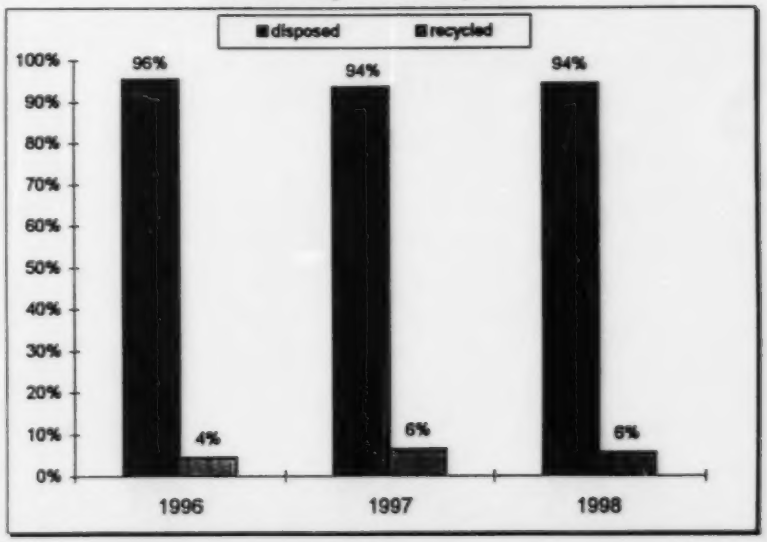
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 26-50%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Skeena-Queen Charlotte Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	25.1	21.0
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	-
Metals	Other	240.0	25.0
Metals	White Goods	171.0	222.0
Organic	Wood	-	-
Organic	Yard	-	-
Paper	Co-mingled	44.1	59.0
Paper	Corrugated	290.0	376.0
Paper	Fine	103.0	51.0
Paper	News	110.0	118.0
Plastic	All	4.0	5.0
Programs	Battery, paint, etc.	91.0	27.0
Rubber	Tires	45.0	30.0
Textiles	All	-	2.0
Recyclables	Co-mingled		-
	TOTAL	1,123	936
Total Recycled Per Capita (tonnes)		0.04	0.04

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Prince Rupert	Landfilled	Yes	13,386.0	11,532.0
Islands Landfill	Landfilled	No	2,950.0	2,871.0
Hartley Bay	Incinerated	No		115.0
Metlakatla	Landfilled	No		104.0
Port Simpson	Incin./Landf.	No		650.0
Kitkatla	Landfilled	No		334.0
		TOTAL	16,336.0	15,606.0

Notes and Programs of Significance

- Figures for Hartley Bay, Metlakatla, Port Simpson, and Kitkatla are estimates.
- Metals - White goods includes propane tanks.

Squamish-Lillooet Regional District

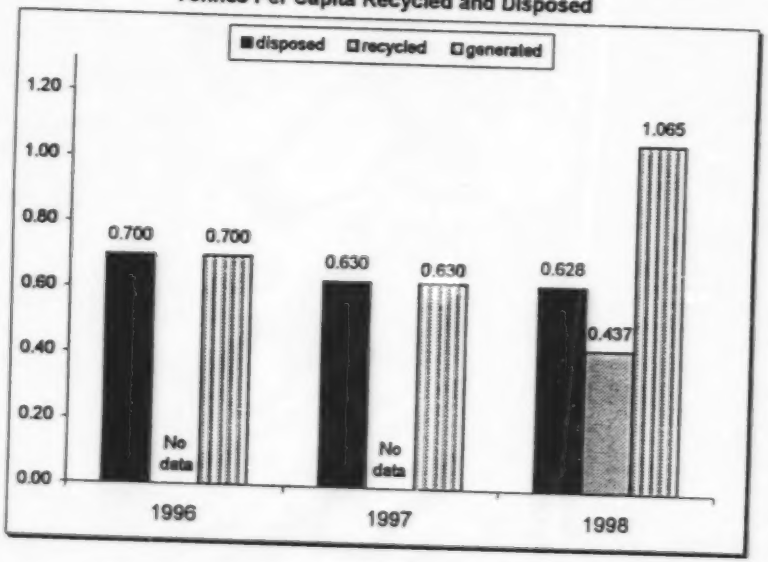
Regional District Area (km^2): 16,534

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	32,437	38,924	100%	1.200	0	0%	0.000	38,924	1.200
1996	40,478	28,335	No data	0.700	No data	No data	No data	28,335	0.700
1997	41,895	26,394	No data	0.630	No data	No data	No data	26,394	0.630
1998	42,714	26,845	59%	0.628	18,655	41%	0.437	45,500	1.065

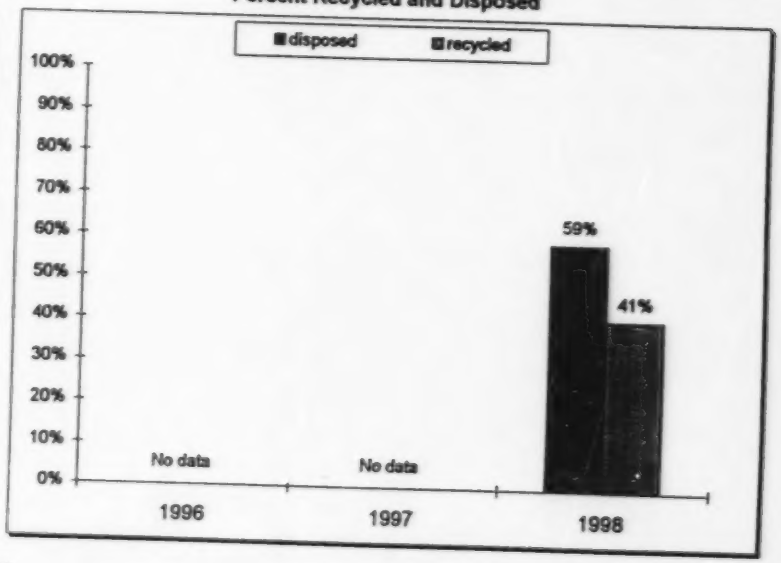
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 75-100 %

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District

Source of 1990 data: Grouping/Previous MSW Tracking reports

Source of 1996 data: Grouping/Previous MSW Tracking reports

Source of 1997 data: Grouping/Previous MSW Tracking reports

Source of 1998 data: Regional District

Squamish-Lillooet Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	-	1,533.1
Household	Other	-	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	817.6
Inorganic	Co-mingled	-	-
Inorganic	Concrete	-	-
Inorganic	Gypsum	-	855.6
Metals	Other	-	3,711.6
Metals	White Goods	-	-
Organic	Wood	-	984.0
Organic	Yard	-	475.3
Paper	Co-mingled	-	777.5
Paper	Corrugated	-	2,886.1
Paper	Fine	-	86.4
Paper	News	-	452.3
Plastic	All	-	165.7
Programs	Battery, paint, etc.	-	5,745.4
Rubber	Tires	-	142.3
Textiles	All	-	-
Recyclables	Co-mingled	-	22.4
	TOTAL		18,655
Total Recycled Per Capita (tonnes)		0.00	0.44

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Squamish	Landfilled	Yes		9,380.0
Whistler	Landfilled	No		14,187.0
Pemberton and Area C	Landfilled	No		1,322.0
Area A	Landfilled	Yes		119.0
Lillooet	Landfilled	Yes		1,387.0
Area B	Landfilled	Yes		173.0
Area D	Landfilled	Yes		277.0
		TOTAL	-	26,845.0

Notes and Programs of Significance

- 1996 and 1997 data estimated using grouping/past MSW reports.
- Source for 1996-98 population and 1998 tonnage figures: Squamish-Lillooet Regional District Waste Reduction Tracking Report, 1998.
- Although recycling was an active component of waste management in the SLRD, estimates are not available for 1996 and 1997.
- Whistler landfill will commission a weigh scale by January 2000.
- Population figures include an equivalent full time population for Whistler (50 % of developed bed units).
- Recycling figures do not include backyard composting.
- Programs - Battery, etc. includes reuse programs that divert 8 % of waste disposed.

Sunshine Coast Regional District

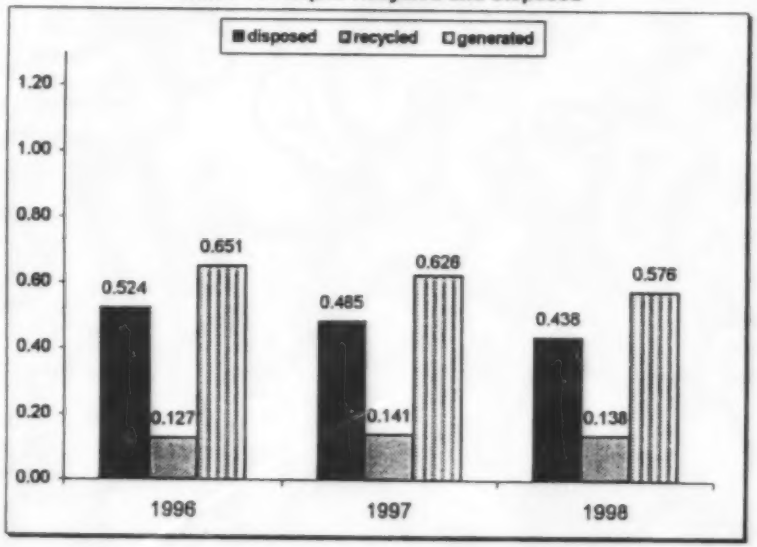
Regional District Area (km^2): 3,824

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	19,119	17,207	99%	0.900	162	1%	0.008	17,369	0.908
1996	24,914	13,054	80%	0.524	3,175	20%	0.127	16,229	0.651
1997	25,911	12,560	77%	0.485	3,658	23%	0.141	16,218	0.626
1998	26,947	11,796	76%	0.438	3,729	24%	0.138	15,525	0.576

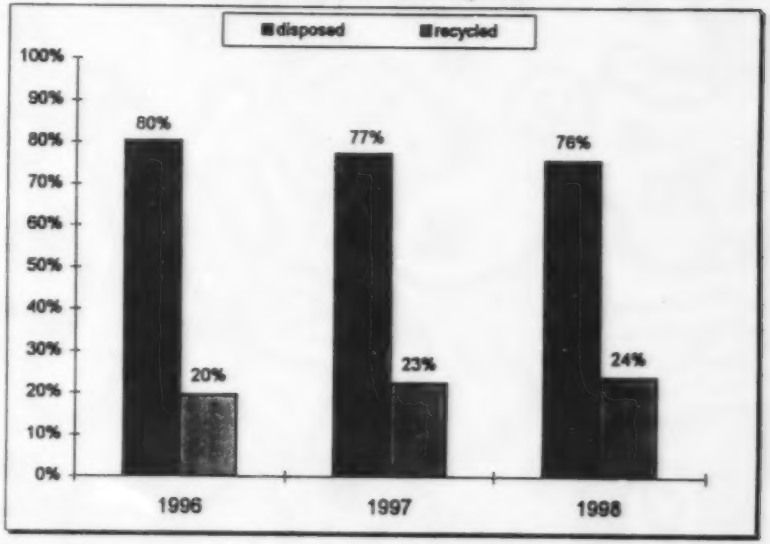
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 51-75%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District
Source of 1990 data: Grouping/Previous MSW Tracking reports
Source of 1996 data: Regional District
Source of 1997 data: Regional District
Source of 1998 data: Regional District

Sunshine Coast Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	242.8	280.0
Household	Other	54.2	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	-	-
Inorganic	Co-mingled	-	-
Inorganic	Concrete	0.7	0.1
Inorganic	Gypsum	327.8	267.6
Metals	Other	555.2	455.6
Metals	White Goods	84.7	68.7
Organic	Wood	78.7	79.8
Organic	Yard	666.9	860.8
Paper	Co-mingled	10.0	32.0
Paper	Corrugated	787.3	615.0
Paper	Fine	75.5	83.0
Paper	News	639.3	699.0
Plastic	All	34.9	51.0
Programs	Battery, paint, etc.	26.0	127.7
Rubber	Tires	43.0	87.5
Textiles	All	31.7	21.0
Recyclables	Co-mingled	-	-
	TOTAL	3,658	3,729
Total Recycled Per Capita (tonnes)		0.14	0.14

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Sechelt Landfill	Landfilled	Yes	11,452.8	10,657.7
Pender Harbour Landfill	Landfilled	Yes	1,106.8	1,137.8
		TOTAL	12,559.6	11,795.5

Notes and Programs of Significance

- Figures do not include private sector recycling.
- Figures do not include source reduction (e.g., backyard composting).
- 1500 composters distributed since 1994.
- "Share Shed" diverted 50 tonnes of material in 1998.
- "One Can" program for residential garbage introduced in March 1998.
- Several unstaffed recycling depots added in 1998.
- GRIPS offers resort recycling with high participation.
- SCRAPS offers office paper recycling pick up program.
- Wetland engineered to treat leachate at Pender Harbour landfill.
- RD has 3 paint care facilities and 1 CPSP depot.

Thompson-Nicola Regional District

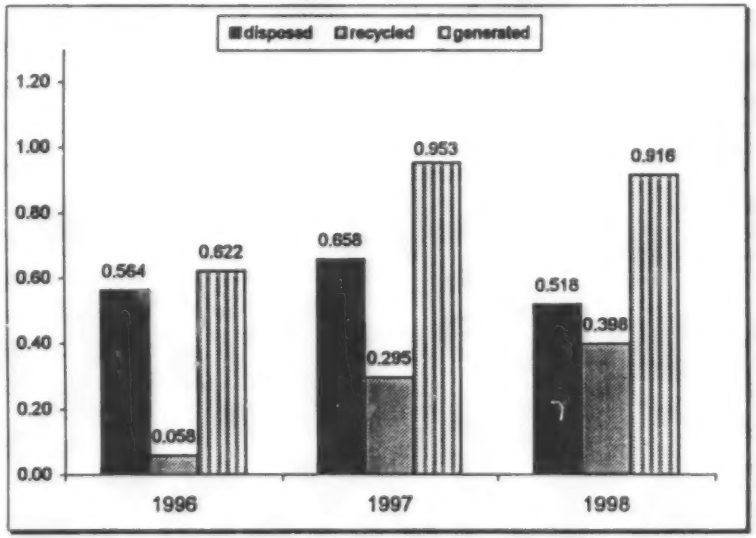
Regional District Area (km^2): 44,872

Year	Population	Total waste disposed (in tonnes)	Percent disposed	Tonnes per capita disposed	Total waste recycled (in tonnes)	Percent recycled	Tonnes per capita recycled	Total waste generated (in tonnes)	Tonnes per capita generated
1990	104,386	69,939	96%	0.670	3,285	4%	0.031	73,224	0.701
1996	124,725	70,295	91%	0.564	7,241	9%	0.058	77,536	0.622
1997	125,681	82,694	69%	0.658	37,137	31%	0.295	119,831	0.953
1998	126,798	65,638	57%	0.518	50,454	43%	0.398	116,092	0.916

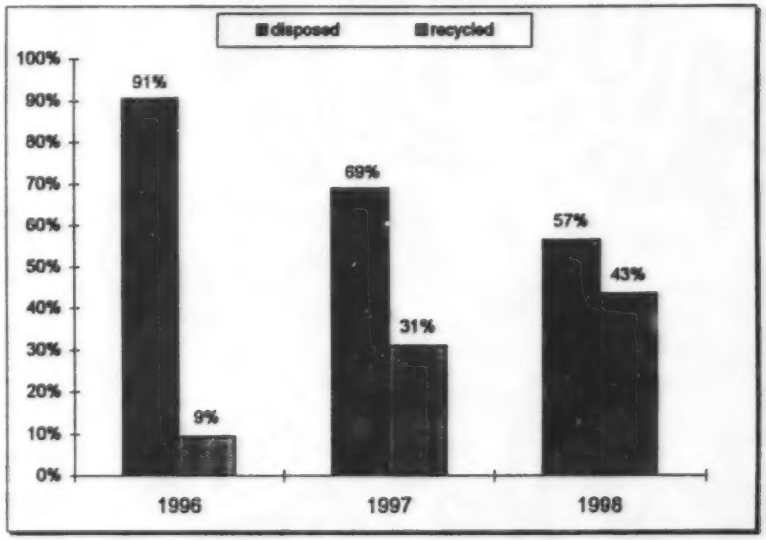
Approved solid waste management plan (SWMP): Yes

SWMP State of implementation: 76-100%

Tonnes Per Capita Recycled and Disposed



Percent Recycled and Disposed



Data status: Confirmed by Regional District

Source of 1990 data: Grouping/Previous MSW Tracking reports

Source of 1996 data: Regional District

Source of 1997 data: Regional District

Source of 1998 data: Regional District

Thompson-Nicola Regional District

Recycled Waste Breakdown

Class	Sub-Class	1997 Total (tonnes)	1998 Total (tonnes)
Glass	Co-mingled	196.6	204.2
Household	Other	1,877.0	-
Household	Propane Tanks	-	-
Inorganic	Asphalt	12,959.0	19,300.0
Inorganic	Co-mingled	-	-
Inorganic	Concrete	300.0	300.0
Inorganic	Gypsum	-	-
Metals	Other	2,675.5	2,364.2
Metals	White Goods	-	-
Organic	Wood	-	7,398.4
Organic	Yard	10,648.0	10,001.4
Paper	Co-mingled	421.6	0.1
Paper	Corrugated	2,932.4	3,002.4
Paper	Fine	-	332.3
Paper	News	1,985.4	2,868.9
Plastic	All	80.4	85.0
Programs	Battery, paint, etc.	1,787.9	579.3
Rubber	Tires	1,188.4	1,272.8
Textiles	All	85.0	-
Recyclables	Co-mingled	-	2,744.7
	TOTAL	37,137	50,454
Total Recycled Per Capita (tonnes)		0.30	0.40

Disposed Waste Breakdown by Facility Type

Disposal Facility	Disposal means	Weigh Scale	1997 (tonnes)	1998 (tonnes)
Mission Flats	Landfilled	Yes	47,500.0	36,413.0
Barn Hartvale	Landfilled	No	4,050.0	4,465.0
Barriere	Landfilled	No		1,074.0
Clearwater	Landfilled	No		2,797.0
Chase	Landfilled	No		2,182.0
Heffley Creek	Landfilled	No	305.0	3,794.0
Logan Lake	Landfilled	No		1,761.0
Lower Nicola	Landfilled	No		5,976.0
Remainder of TNRD	Landfilled	No	28,705.0	5,490.0
Ashcroft/Cache Creek (taken to Cache Creek)	Landfilled	No	2,134.0	1,686.0
		TOTAL	82,694.0	65,638.0

Notes and Programs of Significance

- Data does not include waste disposed at Valleyview Enterprises landfill. Figures from this landfill are not submitted to the RD.